ABSTRACT

Title of Dissertation:	RISK AND COMMITMENT: CRITICAL DIMENSIONS FOR DEVELOPMENT ASSISTANCE TO COUNTER INSURGENCIES
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Studies of development assistance in Afghanistan have found the impact of such assistance for reducing violence and countering insurgents to be weaker than in Iraq, not connected to improvements in Afghan perceptions of the quality of their governance, and inconsequential in the long term. While these previous results seem disappointing, existing frameworks offer only a limited perspective on why development assistance has not been more impactful in Afghanistan. My research analyzes development assistance in contexts that are more closely related to the reality of how insurgents fight within the geographic environment in Afghanistan compared to the existing literature, while also focusing on the longer-term effects of assistance rather than the short-term impacts previously examined. My framework identifies the concepts of *risk* and *commitment* as critical factors for countering insurgents. Risk refers to the risk tolerance for counterinsurgents, specifically the

degree to which counterinsurgents emplace development assistance in areas that favor insurgent control. Commitment refers to the persistence of efforts aimed at development assistance, capturing the period of time over which counterinsurgents make investments in a local area. My empirical work coupled with qualitative interviews indicate that counterinsurgents must be willing to take risk and demonstrate commitment for development assistance to contribute to stabilizing a local area. An implication is that the weakness of development assistance for countering insurgents in Afghanistan reflects the typical situation in which development assistance has high commitment but low risk. Even when development assistance has taken risk, sporadic commitment might be constraining the effects. A hopeful implication of my research is that when development assistance involves sufficient risk and commitment, it has the potential to reduce violence in an adjoining area. In particular, I find that more risky rural development has a consistent association with less urban violence, while less risky urban development has a consistent association with more urban violence. However, the requirements of risk and commitment are steep in practice. It is possible for development assistance to reduce violence and improve stability, but the institutional headwinds are great and the costs—no matter the dimension in which they are measured—are substantial.

RISK AND COMMITMENT: CRITICAL DIMENSIONS FOR DEVELOPMENT ASSISTANCE TO COUNTER INSURGENCIES

by

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Preface

This dissertation addresses two basic puzzles around how to estimate and understand the effects of development assistance on insurgent strength in Afghanistan. Both puzzles relate to policy problems concerning why the United States and coalition forces struggled to stabilize Afghanistan despite having freshly re-learned counterinsurgency in Iraq, and why counterinsurgent effects have not been enduring in either Iraq or Afghanistan. Both puzzles are possible to address now because the geographic precision and the temporal length of the data on development assistance, popular perceptions, and violence in Afghanistan have grown steadily since coalition force operations began in October 2001. There is now enough empirical evidence of improvements in stabilization in some local areas over time, as well as evidence of the absence of stabilization over time in other areas, to distinguish between efforts that did and did not effectively reduce violence and contribute to success in countering insurgents.

The first puzzle is how to integrate the way in which insurgent organizations such as the Taliban in Afghanistan conduct attacks into the empirical analysis of the effects of development assistance. The second puzzle is that short-term insurgent responses to development assistance may be inconsistent with the effects of development on insurgents in a local area over longer periods of time. For example, a development effort might beget an initial increase in violence and only lead to a better outcome over a longer period.

These puzzles translate directly to the critical dimensions of this study: 1) risk

and 2) commitment. While risk and commitment are familiar in security studies, game theory, and economics, I turned to them in this study because of my observations during two deployments to Afghanistan as a military intelligence officer.

The need to integrate analysis with the way insurgents operate motivates the use of the term risk, which refers to the risk tolerance for counterinsurgents and captures the degree of insurgent control in an area. Counterinsurgents take more risk when they operate in areas with more insurgent control. The concept of risk in the counterinsurgent context can be seen as an analogy to traditional financial investments, where higher risk implies higher potential returns. Counterinsurgents operating in areas further away from cities or off the main highway in Afghanistan, for example, can be seen as taking greater risk because the terrain and/or the population in more remote areas tend to favor insurgents.

The concept of commitment refers to the persistence of counterinsurgents, capturing the period of time over which counterinsurgents undertake investments in a local area. Commitment is consequential because development assistance that involves a single or even occasional project in an area would be expected to have a different (and lesser) impact than a situation in which development assistance in a local area is sustained. In principle, development assistance could lead to increased conflict in the short term as insurgents contest the development or attack security forces associated with assistance projects, but over time, the assistance might lead to stabilization and a reduction in violence as the economic effects of the development assistance mature. These possibilities are the questions addressed in the empirical work in this dissertation.

My empirical work and accompanying qualitative interviews together indicate that risk and commitment intertwine to such a degree that the potential for development assistance to contribute to stabilizing a local area exists only when both are present. Counterinsurgents must not just operate in the relatively risky environment of rural Afghanistan and off the main highway, but they must also do so for an extended time period–enough to demonstrate commitment. In addition, development in a relatively more risky area—such as in the rural areas around an urban area—might affect violence downstream in an adjoining area. That is, a development strategy focused on relatively risky rural areas may help stabilize the more populous urban areas. However, the requirements of risk and commitment are steep in practice. The opportunity for stabilizing effects from development assistance exist, but the institutional and practical headwinds are fierce, and the costs—measured across multiple dimensions—are substantial.

Risk

Almost all research on development assistance in combat areas over the past ten years uses a geographical unit of analysis at the level of the second order administrative division. In Afghanistan, that level is the district level. While the district level unit of analysis seems appropriate from a governance perspective, it is not congruent with the way insurgents fight. A district level unit of analysis neglects the reality that most insurgents who conduct attacks in a given area do not reside in that same local area.

Consider an insurgent's perspective: why would an insurgent detonate an Improvised Explosive Device (IED) on the road in front of his own residence? Such

an attack would reduce the value of his own residence, agitate his neighbors (perhaps even leading them to provide information to counterinsurgents), and attract security forces to come search his residence for IED components. Such behavior does not seem likely from rational insurgents.

Most tactical intelligence analysts think of insurgent disposition in terms of bed-down locations, staging areas, and engagement areas—where insurgents sleep; where they gather to organize; and where they carry out attacks. These can be simplified into support zones and disruption zones. The areas where insurgents bed down are support zones. The areas where insurgents attack are disruption zones. Staging areas are near the intersection of the two zones.

Using risk as a variable allows alignment between quantitative analysis and this conception of insurgent disposition. The level of risk for counterinsurgents typically varies with the degree of control for insurgents, where insurgent control can come from favorable terrain and/or a favorable population. Areas of the greatest risk for counterinsurgents—the places where insurgents have the most control—are most likely to be near bed-down locations or support zones. Those areas of the least risk—where insurgent control is more contested—are most likely to contain engagement areas or disruption zones. The empirical results suggest that projects in areas of moderate risk—areas near the staging areas around the intersection of support zones and disruption zones—may be more valuable for countering insurgents than projects in areas of low risk.

Commitment

The importance of commitment came from recognition that my two trips to

Afghanistan were but a small part of the story of the past 17 years. Over that period, both strategic shifts in the U.S. approach to the Afghan conflict and changes related to deployment cycles have made development investments at the local level very uneven and often disjointed. While violence remained pervasive on the aggregate in Afghanistan, it seemed unfair to declare that this meant that development assistance had failed. Instead, discerning the effects of development in any given local area require understanding the previous efforts made toward investment in that area.

To have confidence in understanding whether development assistance did or did not have an effect, it seemed necessary to know whether a development project was, for instance, the first project or the twentieth project in a district. A violent insurgent response to the twentieth project tells a different story than a violent response to the first. Prior analyses had not included this information, focusing primarily on the dollars involved but not on projects' temporal characteristics. Including a measure of commitment brings in information about whether the impacts of development assistance have compounded over time at the local level.

Why the Omission of Risk and Commitment is Consequential

When analyses do not distinguish between varying levels of risk, the majority of projects carried out in areas with relatively less risk can dominate the effects that appear in empirical estimates of the relationship between development assistance and violence. While there is some risk anywhere in Afghanistan, Chapter 1 illuminates the many headwinds that constrain most projects to be emplaced in less risky areas. At the same time, when analyses do not capture the degree of local commitment, they do not allow collection of evidence either in favor of or against counterinsurgency

and stabilization mechanisms that require time to take root.

Opportunity cost and goods competition mechanisms are often prematurely dismissed in such analyses, but they might be relevant in models that account for risk and commitment.[1] An opportunity cost effect in an Afghan context would exist if potential insurgents turn away from insurgent recruitment because their time would be more valuably spent farming or transporting goods to market. This type of effect is only possible once development investments have lasted for periods that exceed insurgent recruitment cycles and have reached the populations targeted by insurgents for recruitment. A goods competition effect could occur if existing insurgents or insurgent supporters began to defect because loyalty to insurgents precluded them or their families from access to counterinsurgent development programs. This type of effect is only possible once counterinsurgents have a stable presence in areas close enough to areas of insurgent control to make competition genuine. Instead, an information-sharing mechanism by which counterinsurgents undertake development projects in order to elicit useful information from locals dominates empirical findings in analyses that are short term or do not consider risk.[2]

However, the relationship between development assistance and counterinsurgent success based on information-sharing faces fundamental constraints

[1] The opportunity cost mechanism suggests that development assistance can increase the opportunity cost of participating in the insurgency and thereby reduce insurgent recruitment because potential insurgents must relinquish better opportunities outside of the insurgency. The opportunity cost mechanism originates from Becker (1968) but has greatest empirical support in this context in Blattman and Annan (2015). The goods competition mechanism suggests that development assistance can reduce the relative advantage insurgents maintain with local public goods provision, subsequently increasing the likelihood that insurgents face a defection problem. Goods competition comes from Berman and Laitin (2008).

[2] The information-sharing mechanism suggests that development assistance can lead the population to provide more information that is useful to counterinsurgents. The information-sharing model was developed in Berman, Shapiro, and Felter (2011a).

when risk and commitment are not considered. This condition exists because placement and access are key criteria for the quality of information from a human intelligence source.[3] Individuals with placement and access to insurgents are more likely to reside in areas of greater insurgent control. As a result, the likelihood of receiving information from an informant with quality placement and access has a direct relationship with the level of risk counterinsurgents undertake. Hence, the information that might be derived from a project in a relatively risky area has the potential to be more valuable than the information from a project in a less risky spot. In addition, developing credible information corroboration in a relatively risky area takes time; counterinsurgents must be committed to the area. Thus, if institutional processes lead to the establishment of more projects in areas of less risk or if there is sporadic commitment to risky areas (as is shown in Chapter 1), then the only detectable effect will be from information-sharing, and the effect of development assistance in reducing violence is likely to be small—as has been found in previous research.

Why Development Assistance with Risk and Commitment Could Be Consequential

This dissertation, in contrast, examines development assistance with an empirical methodology—both quantitative and qualitative—that measures both risk and commitment. Counterinsurgency and stabilization mechanisms that involve information-sharing, opportunity cost, or goods competition could each reduce

[3] The Army Human Intelligence manual (FM 2-22.3, 2006) states, "Sources are chosen according to their reliability, level of cooperation, and placement and access. Selection is particularly important in stability and reconstruction operations where the HUMINT collectors have access to a large potential source pool" (12-19).

violence when risk and commitment interact. From a risk perspective, projects must be close enough to areas of insurgent control for efforts to elicit information-sharing from local citizens with placement and access to insurgents, for opportunity cost to dissuade potential insurgent recruits, or for counterinsurgent goods and services to offer viable competition in areas of insurgent advantage. Risk alone is insufficient, however, because commitment over time is necessary to develop information corroboration, to manifest a positive effect on the local economy, or to reach a level of competitiveness with insurgents. Thus, the need for sufficient risk and commitment is a common spatial and temporal requirement for development to improve security. This two-fold requirement for both risk and commitment connects the information-sharing, opportunity cost, and goods competition mechanisms. These mechanisms are all present in extant theoretical frameworks. The innovation here is applying the concepts to empirical work with the spatial and temporal parameters that allow policy conclusions to be drawn.

Designing a Study around Risk and Commitment

Examining the effectiveness of development assistance for countering insurgents along the dimensions of risk and commitment was necessary for personal contentment that the conglomeration of development investments in Afghanistan since 2002 had been analyzed properly and that the right lessons had been gathered on whether these efforts made a difference. As described above, many of the counterinsurgency and stabilization mechanisms discussed elsewhere in the development and counterinsurgency literature are unifiable along the lines of risk and commitment. That is, if development has both sufficient risk and commitment,

multiple mechanisms might be present as ways in which assistance works to reduce violence. To date, however, there is no empirical work to discern whether risk and commitment matter for development assistance's effects; this became my principal focus.

Not surprisingly, I did not find a single data source or level of analysis where I could illuminate readily-quantified measures of risk and commitment and estimate their independent and interactive effects on insurgents. Data are both noisy and incomplete in an environment such as Afghanistan. Some data on quantitative measures of development assistance or insurgent attacks have great geographic precision but do not have accurate reporting over a sufficient timespan (let alone all 17 years of the U.S. engagement in Afghanistan). Precise violence data in particular (such as Department of Defense Significant Activities, or SIGACTS, data) depends on the number of troops patrolling; the econometrician would say the data are biased. Other quantitative data on development projects or on the number of attacks exist over a longer period with more consistent measures but without the same geographic precision.

In addition, relying on quantitative data alone misses the insights that can be gathered from those who made decisions about development in Afghanistan and observed its effects first-hand. Capturing these insights is a fleeting opportunity while memories remain vivid. Even so, there are limits to the analysis here. For example, the best measures of insurgent strength—those that reveal private insurgent information—exist only to a very limited degree at an unclassified level.

As a result, I use multiple quantitative and qualitative data sources to

triangulate whether risk and commitment matter, and why. I begin with a two-chapter, provincial-level case study on project emplacement and its effects to build and refine my theory of risk and commitment's importance. I conclude with a national-level application of the theory to a rural-urban construct, examining the interactions between risk and commitment across the rural versus urban geographical divide that is pervasive in Afghanistan. No single chapter is irrefutable, and I openly state the uncertainties and limitations in each. Confidence in the importance of risk and commitment emerges from the multiple data sources and multiple levels of analysis that point toward the common conclusion that risk and commitment matter.

Dissertation Outline

Chapter 1 begins with an institutional perspective on project emplacement to explain why development projects rarely involve both risk and commitment. Counterinsurgents face a challenge of projection. Qualitative interviews and quantitative data capture the headwinds faced by counterinsurgents in consistently conducting development projects away from cities or away from the main highway (the ring road, which is an area over which counterinsurgents consistently seek to maintain control). Consequently, the majority of projects are in the less risky insurgent disruption zones—locations in which weaker effects of development assistance are expected—rather than near the more risky staging areas or support zones.

Chapter 2 operationalizes risk and commitment within the case study from Chapter 1 and estimates their independent and interactive effects. The empirical results reveal a problem for the majority of projects with relatively low risk that were

identified in Chapter 1. Development with commitment but without risk allows violence to escalate. Meanwhile, development with risk and low levels of commitment at least initially, curbs violence. A limitation of the empirical work is that there are a limited number of projects in relatively risky districts, with the result that uncertainty remains about the combined effects of risk and higher levels of commitment in the longer term. From the micro-level case study, there may be qualitative differences between projects in more and less risky areas at lower levels of commitment—such as the possible presence of co-option in riskier areas—but the quantitative differences are less clear.[4] The implication is that taking risk matters; commitment alone is not enough. While there is suggestive evidence that violence is reduced when development assistance involves both risk and commitment, these latter empirical results are not as strong.

Chapter 3 looks at risk and commitment in a broader context with different development and violence data—an out of sample test. The empirical results show that more risky rural development has a consistent association with less urban violence, while less risky urban development has a consistent association with more urban violence. Again, the implication is that risk must be taken for development assistance to translate into less violence. While urban development can increase welfare for more people and is more cost efficient (because there are more people in the urban areas and each dollar goes further, or should), operating in the cities alone does not appear to reduce violence. Rural development on the face appears less

[4] The co-option mechanism suggests that insurgents allow development assistance to take place because it benefits them directly, reducing attacks in proximity to development projects. For instance, insurgents may become part of the labor force for development projects or gain legitimacy by allowing projects to persist.

consequential because those areas are less dense in population and there are greater logistical costs. But the empirical work indicates that development assistance in more risky rural areas reduces violence in the adjoining urban areas—a finding that alters calculations of development's benefits and costs during counterinsurgency and stabilization. While I do not include a cost-benefit analysis of whether investing in development assistance with sufficient risk and commitment is worthwhile, the empirical results imply that the hurdle for success in countering insurgents is steep.

Implications

Each chapter contributes to illuminating the relevance of risk and commitment as critical dimensions for development assistance to counter insurgencies, but each one also has a unique implication. The first chapter's perspective on institutions is relevant for institutional reforms spurred by the 2018 inter-agency Stabilization Assistance Review. The second chapter's examination of different counterinsurgency and stabilization mechanisms addresses ambiguity in the literature on the effect of development assistance during counterinsurgency and stabilization. The third chapter's rural-urban framework has implications for thinking about the role of development in counterinsurgency and stabilization and for planning the disposition of security forces and development. With this range of implications, this study is relevant for bureaucrats, academics, development implementers, and strategic planners alike.

Dedication

For every American Soldier, Service Member, and Civilian who gave their finest in Afghanistan since September 11, 2001, that we might understand better what your service has meant.

While writing the case studies, I was especially reminded of friends who lost their lives in Ghazni and Zabul: CPT Drew Ross, Ghazni, 2018; 1LT Chris Goeke, Zabul, 2010.

I am always reminded of my very first Platoon Sergeant and my very good friend: SSG Jason Reeves, Paktia, 2010.

Be Thou at Peace.

Acknowledgements

I am thankful for a gracious God, a selfless wife, three understanding kids, and a supportive committee. I am also grateful for parents, friends, and mentors who have been instrumental in keeping my family and I going as I have tried to clear the final hurdles of this dissertation—albeit with a broken leg. I will remember all of you. Thank you.

Table of Contents

List of Tables

List of Figures

Chapter 1: Provincial Reconstruction Team Decision-Making and Project Emplacement

Since the United States began investing in governance and development in Afghanistan in 2002, resource constraints have always meant that decisions about where to invest have involved tradeoffs. An investment in one village or government seat comes at the cost of a potential investment in another. Yet, where to prioritize development assistance is not doctrinally prescribed. I use qualitative interviews with civilian and military leaders on Provincial Reconstruction Teams in adjacent provinces that cross a regional command boundary (Ghazni and Zabul) to develop a generalizable understanding of this prioritization process and to identify conditions that influence project emplacement. I organize my analysis to distinguish between conditions that constrain or support projection away from population centers or the main highway—development assistance with greater projection is away from the cities and in rural areas at a distance from the highway. I find that maximizing benefits for Afghans, supporting Afghan provincial leaders, and unifying U.S. agency priorities constrained projection while valuing geographic equity for Afghans, leveraging Afghan local leadership, tolerating financial inefficiency, and separating U.S. agency objectives supported projection. These ground-level conditions illuminate unanticipated consequences of logical principles that are relevant for strategic-level reforms seeking to improve counterinsurgency and stabilization outcomes.

Introduction

Development and reconstruction in Afghanistan since 2002 has involved some amalgamation of the doctrines of counterinsurgency and stabilization. If the entire country could follow the "shape-clear-hold-build-transition" model in the most current U.S. ground force counterinsurgency doctrine (FM 3-24/MCWP 3-33.5, 2014), then stability tasks would be most prevalent in the later build and transition stages. When resource constraints prevent such a sequence in every locale, however, counterinsurgents must grapple with where to invest their efforts to most efficiently

accomplish multiple counterinsurgency and stability objectives. A starting point for examining counterinsurgency and stability outcomes in Afghanistan is to ask, why were investments in governance and development made in one local area over another? This understanding of project emplacement can then inform analyses of project effects. However, a puzzle exists because existing analyses do not consider development project emplacement at a more granular level than that of a district, and neither counterinsurgency doctrine nor literature on bureaucratic and individual decision-making allow precise expectations or predictions for where projects should be emplaced. Civilian and military leaders in Afghanistan had to figure it out. This chapter seeks to make systematic what they learned.

Counterinsurgency and stability doctrine are left open in terms of how much to invest in governance and development in different types of locations, leaving those on the ground with much leeway and many tradeoffs because each project must occur at a fixed location and can only impact a limited number of people. Among the many echelons in Afghanistan during Operation Enduring Freedom, Provincial Reconstruction Teams (PRTs) spent the most time grappling with this challenge of deciding where to invest counterinsurgency and stabilization resources. PRTs were inter-agency teams consisting of civilian and military personnel responsible for planning and implementing governance and development in each Afghan Province. U.S.-led PRTs consisted of Department of State, Department of Defense (DOD), U.S. Agency for International Development (USAID), and U.S. Department of Agriculture (USDA) personnel.

Factors related to bureaucratic incentives or individual aptitudes for making

decisions in a conflict environment could influence PRT outputs. Operating at the bottom of a bureaucracy, PRTs engaged in an inter-agency process that sought to translate general counterinsurgency and stability doctrine to actual locations of governance and development investment while allocating limited resources and limited time. At the same time, individual personalities and capacities also mattered as civilian and military officials faced the complexities of gathering information and identifying the needs of Afghan communities—whether those perceived by the population or actual needs.

This analysis coheres with the themes of Komer (1972) and Greentree (2013), who emphasized the consequences of institutions for counterinsurgency and stability outcomes at the national and theater levels in Vietnam and Afghanistan. Studying PRTs allows a consistent focus on an inter-agency institution at the ground level of the multi-level, inter-agency institutional structure rather than the middle or the top, on which Greentree and Komer focused their attention. If ground-level PRT decisions determine project emplacement and project emplacement in turn impacts counterinsurgency and stability outcomes—as I examine in Chapter 2—a nuanced understanding of PRT behavior aids in understanding those outcomes.

I use a case study of PRTs in Ghazni and Zabul Provinces from 2008 through 2012 for a view into counterinsurgency and stability efforts across two regional commands and across the pre- and post-surge eras of U.S. operations in Afghanistan. As adjacent provinces with PRTs led by the United States, the two locations for these longitudinal case studies capture both civilian and military efforts and offer insights that are relevant across the U.S. counterinsurgency and stabilization operations policy

space. This study speaks directly to many of the themes in the 2018 Stabilization Assistance Review (SAR) completed by the Department of State, USAID, and DOD (June 2018). While the SAR appropriately identifies past deficiencies in "strategic clarity, organizational discipline, and unity of effort" during stabilization (1), policy changes to address these deficiencies will not be costless. This study illuminates some of the potential unintended consequences of what seem like logical principles regarding development assistance when decisions about project emplacement are made.

The lessons from the SAR that have direct ties to the findings in this case study are those related to the host nation's role in driving projects (7) and achieving "unity of purpose" across U.S. agencies (9). Both are appropriate lessons, but this study highlights nuance when it comes to project emplacement decisions where host-nation primacy and inter-agency unity could diverge from their intent. Limited interests of host nation leaders or a lumbering inter-agency process could constrain projection and weaken stabilizing effects. By projection, I mean the emplacement of projects away from the center, whether outside of a provincial or district seat, or in a location at a distance from a central geographic feature like the main highway. Thus, this study presents ground-level challenges that are relevant for the implementers of reform to counterinsurgency and stabilization practices and doctrine.

Table 1. Summary of Conditions that Impact Project Emplacement

Condition	Underlying Logic	Confidence in Finding
Conditions That Constrain Projection		
1. Maximizing Benefits for Afghans	Serve the most people by developing densely populated areas	High
2. Supporting Afghan Provincial Leaders	Support the governor whose interests center around the capital	High
3. Unifying U.S. Agency Priorities	Achieve "Whole of Government" approach and mass effects	Low
Conditions That Support Projection		
1. Valuing Geographic Equity for Afghans	Distribute benefits of development throughout the province	High
2. Leveraging Afghan Local Leadership	Capitalize on those with interest in and influence over projects	High
3. Tolerating Financial Inefficiency	Permit contractors to coalition-build to complete projects	Medium
4. Separating U.S. Agency Objectives	Accomplish agency objectives independently	Low

Note: High confidence indicates that officials in both provinces consistently mentioned the conditon's importance. Medium confidence indicates that officials in one province consistently mentioned the condition's importance. Low confidence indicates that officials in one province inconsistently mentioned the condition's importance.

I find that PRTs faced consistent logistical resource constraints. Logical and doctrinal efforts to efficiently maximize the number of Afghans who benefit from governance and development, the desire to support—or at least acknowledge—Afghan provincial leader preferences, and the need to work in a way that could unify multiple U.S. agency objectives often constrained development assistance from taking place away from provincial capitals or away from the main highway (Table 1). That is, projects were more often emplaced closer to the center. Because limiting projection optimized popular benefits, governor interests, and U.S. agency priorities, sustained development projection was rare. When projection did occur, it arose from a combination of emphasis on equitable geographic dispersion of goods and services, local leaders with large social endowments, tolerance of financial inefficiency, and separation of U.S. agency objectives (Table 1).

Background on PRTs in Afghanistan

Table 2. Summary of PRTs in Ghazni and Zabul, 2008-2012

	Ghazni	Zabul
Regional Command	RC-East	RC-South
Provincial Battlespace Ownership	Poland	Romania (2008-June 2010) U.S. (July 2010-2012)
PRT Leadership	Navy	Air Force
Civil Affairs	Army Reserve	Army Reserve
Security Forces	Army National Guard	Army National Guard
Interagency	State Department USAID USDA	State Department USAID USDA

The use of PRTs in Afghanistan began in 2003 and ended by the end of 2013. While all PRTs did not start at the same time, there were PRTs in 26 of 34 Afghan provinces. Taking a snapshot in 2008, twelve provinces had PRTs led by the United States, and 14 provinces had PRTs led by other countries in the coalition. PRTs in Iraq had more substantial civilian leadership, while PRTs in Afghanistan were—numerically—dominated by military personnel. U.S.-led PRTs in Afghanistan were composed of approximately 100 military personnel and up to about 10 civilians. Among the military personnel were civil affairs, engineer, medical, and security force personnel. The military positions were filled by a combination of active duty, reserve, and national guard members from either the Army, Navy, or Air Force. In the case of the two provinces in this case study, the Navy or Air Force provided active duty key leaders including the PRT commander, the Army Reserves provided civil affairs teams, and the National Guard provided security forces. Among the civilian personnel were one or several State Department officials, one or several USAID officials, a U.S. Department of Agriculture official, and several U.S. Army Corps of Engineers civilians. The senior State Department official on the PRT served

as the Senior Civilian Representative (SCR) for each of the two provinces studied here.

PRT responsibilities were broad, spanning governance, security, and reconstruction and development spheres. One PRT commander in this study shared his mission statement:

> Conduct civil-military operations in [X] Province to extend the reach and legitimacy of the Islamic Republic of Afghanistan by:
>
> Promoting good governance and justice
>
> Supporting and enabling effective Afghanistan security apparatus
>
> Facilitating reconstruction, development and economic growth by developing projects on the leading edge of the Afghan National Development Strategy. [Province was removed. Emphasis in the original source.]

This mission statement slightly reflects the earlier era of PRTs in Afghanistan before Afghan security forces were more heavily supported by Security Force Assistance Teams. Hence while broad expectations for PRTs to contribute to governance, security, and reconstruction and development were common, the preponderance of PRT time was spent on governance and reconstruction and development.

While PRTs were central to counterinsurgency and stability strategy, they also faced resource constraints, making their prioritization decisions substantial. One PRT commander noted, "You look at ISAF's lines of effort, they had five at the time, and PRTs were engaged in four of the five, but they were the most under-resourced and the smallest units out in the field" (Interviewee 6, August 27, 2018). Thus, the study of PRTs is consequential for understanding counterinsurgency and stability outcomes in Afghanistan.

Prior to the 2010 surge in Afghanistan, PRTs were generally seen as aiding stability. Malkasian and Meyerle (2009) found from case studies of PRTs in four Afghan provinces in 2007 and 2008 that PRTs supported short-term stability (2-3), and they argued that PRTs should be a part of the U.S. surge (x). Yet, the potential for success of PRTs that Malkasian and Meyerle found does not reflect all PRT performance. Maley (2007) described that "as time has gone by, one point has become increasingly clear – there is no single 'PRT experience'. Instead, a range of factors come into play which shape what PRTs can achieve, and in what ways." While a range of PRT outcomes are likely as Maley captures, this study aims to identify commonalities despite the variation. I look for commonalities that extend across regional commands and across time. Studying PRTs allows a rare lens into dynamics and challenges that are common for implementing development assistance by either civilian or military personnel. The lessons brought forth will have application for future institutions implementing development assistance in conflict areas.

What the Literature Offers for Predicting PRT Outputs

The bureaucratic and individual decision-making literatures offer some clues about how PRTs as inter-agency institutions away from Washington arrive at project emplacement decisions. The PRTs in this case study have four attributes that the literature suggests may exert conflicting pressures: weak rules, distance from Washington and Kabul, uncertain cooperation, and environmental complexity. The way in which these attributes interact is expected to be consequential for whether projects remain close to the center or are emplaced further into the periphery. This

study aims to identify which among these conflicting pressures are most relevant for PRTs, and to consider whether additional factors outside the existing literature on bureaucratic and individual decision-making may govern PRT behavior.

First, weak rules about project emplacement could either constrain or enable development projection. A common refrain in bureaucratic literature is that bureaucracy leads to the avoidance of risk and adherence to rules, both of which are directly related to promotion in the bureaucracy (Warwick 1975, 110). While rules—that is doctrine—for counterinsurgency and stabilization exist, they emphasize what to focus on rather than where to prioritize. In addition, because of the novelty of PRTs, they exhibit minimal institutionalization by which norms could take the place of rules. In the absence of clear rules or norms, officials could wait for direction, avoid risk, and limit projection, or they could take advantage of the flexibility and independence to reach out into the countryside.

Second, the distance from Washington and Kabul could create conflicting motives for both civilian and military officials. Halperin, Clapp, and Kanter (1974) describe that on one hand officials in the field are responsive to their parent organization to the extent that "the military commander or ambassador is only nominally in full control of those beneath them" (261-2). Because officials in the field have dominance over local information, however, they often come to view their superiors as uninformed and disruptive (263). Whether officials become more or less deferential, and more or less risk averse, as a result of distance from Kabul and Washington will be consequential for where PRTs choose to emplace projects.

Third, the extent to which PRTs cooperate and how the degree of cooperation

matters for projection from the center are also uncertain. Generally, there are low expectations for cooperation in inter-agency organizations because of information transaction costs and the trust required for cooperation. This expectation connects back to North (1990; 12, 29-30). Yet, PRTs place civilian and military officials in close proximity for an extended period—most often around six to nine months—which could overcome barriers to cooperation. Still, whether PRTs trend toward cooperation and what this could mean for projection is not certain in advance. One might expect PRTs to exhibit the trading of political favors between officials and operate as described in the Allison (1999) model of governmental politics (255). If Allison's governmental politics model applies, PRT members may well push hard on some projects, relent on others, or trade favors as a form of strategic behavior. These types of interactions are not visible in the existing PRT research, and the consequences in terms of project emplacement from how a PRT approaches cooperation are uncertain.

Fourth, individual capacities and experiences could have a great effect on project emplacement because of the uncertainty of the combat environment. Wilson (1989) notes that in any government agency, individual factors of prior experiences, professional norms, personality, and ideology are consequential (34). Halperin, Clapp, and Kanter (1974) further emphasize the role of the individual in complex foreign environments like the conflict in Afghanistan:

> There is a great uncertainty about what is going on in the world and what the effects of alternative courses of action would be. The way an individual copes with this uncertainty is affected by his background—the personal experiences, intellectual baggage, and psychological needs he brings with him—as well as by his position in the bureaucracy. (16.)

This assertion has a great deal in common with the contentions of Steinbruner (1974), who describes the cybernetic mental simplifications individuals make to operate in complex environments (64-6). He contends that otherwise frustrating bureaucratic outcomes might actually be reflections of cybernetic processes (13). PRTs dealt with uncertainty in identifying the actual needs of Afghan communities as well as the true composition, disposition, and strength of insurgents. How individuals resolve uncertainty and how they process information could be consequential for where projects were emplaced.

Out of this amalgam of bureaucratic and individual influences, PRTs arrived at locations for projects on the ground. Explanations for how PRTs might arrive at such decisions exist within a range. At one extreme, civilian and military PRT members could implement development assistance as close as possible to the center because the rules do not require taking risk, because higher headquarters have not specified what they should do, because all agencies can agree on the least common denominator outcome of working in the center, or because more time can be spent understanding the areas in closest proximity. At the other extreme, civilian and military PRT members could implement development assistance broadly because the rules do not constrain them, because they can shape the information higher headquarters receive, because there is less conflict between agencies when moving further from the center, or because the environment away from the center has fewer actors.

This analysis examines the different ways in which the lack of rules, distance from Washington and Kabul, evolution of cooperation, and individual capacity for

resolving complexity interacted. Out of the interactions, I identify collections of factors that constrain or enable projection, some of which connect with the factors in the existing research literature and others that are novel. The results enable improved clarity about project emplacement decisions than allowed by the existing literatures on bureaucratic and individual decision-making.

Case Study Selection

The PRTs in Ghazni and Zabul were selected as case studies because they were U.S.-led PRTs in adjacent provinces at the boundary of two different International Security Assistance Force (ISAF) Regional Commands (RCs). As a result of commonalities between the provinces and the regional command boundary, it is reasonable to argue that commonalities between PRT experiences in the two provinces is generalizable to all U.S. PRT experiences. As bordering provinces along Highway 1, similar geography, topography, key infrastructure, economic structures, and social demographics allows some separation between the characteristics of PRTs and characteristics of the environment.

The time period from 2008 through 2012 was selected to allow insight into the pre-surge, surge, and post-surge eras in Afghanistan. While PRTs were created in 2003, most U.S. foreign policy attention was in Iraq from 2003 through the end of 2007. Afghanistan was starting to garner attention at the point when this case study begins in 2008. The troop surge in Afghanistan began in 2010 after President Obama's announcement in December 2009. Nineteen months later, President Obama announced the beginning of the drawdown of U.S. forces from Afghanistan. Thus, the case study captures how the PRTs in Ghazni and Zabul acted amidst the resource

increases associated with the surge and resource reductions associated with the drawdown. Common trends across these time periods should be seen as robust and relevant for doctrinal discussion.

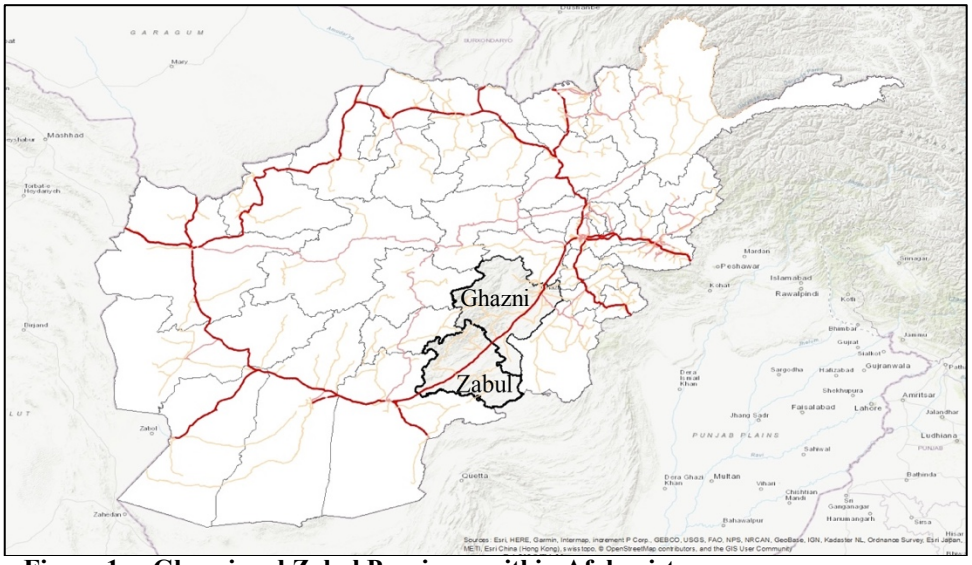

Figure 1a. Ghazni and Zabul Provinces within Afghanistan

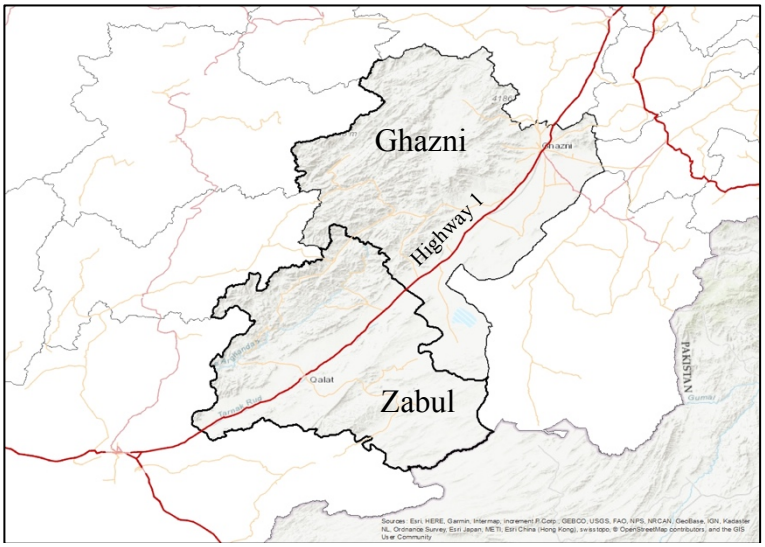

Figure 1b. Ghazni and Zabul Provinces

Qualitative Methods

Table 3. Summary of Interview Data

	Ghazni	Zabul
Contacted Requesting Interview	13	11
Responded to Request	8	6
Completed Interview	7	6
Completed Interviews by Agency		
Defense	4	3
State	2	3
USAID	1	0
Completed Interviews by Time Period		
Before Surge (2008-2009)	1.25	4
During or After Surge (2010-2012)	5.75	2

I began developing an understanding of PRT operations in Ghazni and Zabul by reviewing documents and social media posts. As a starting point for documents, I used the Factiva database with a keyword search for "Provincial Reconstruction Team Ghazni" and "Provincial Reconstruction Team Zabul." The Factiva search produced news articles and press releases totaling 276 pages for PRT Ghazni and 243 pages for PRT Zabul. On social media, I read the full histories on the PRT Ghazni and PRT Zabul Facebook pages. The Facebook pages often had links to other articles or press releases, such as those through Defense Visual Information Distribution Service (DVIDS) or, in the case of PRT Ghazni, a blog page. From the several qualitative data sources, I developed timelines of events and persons for both PRTs.

I initially sent messages to civilian and military leaders on PRTs Ghazni and Zabul who were identifiable through LinkedIn. Following some initial interviews, I was able to connect with other individuals through the connections of respondents, a snowball sampling technique. In full, I contacted a total of 24 civilian and military officials who served in on PRTs in Ghazni and Zabul during the time frame of the case study, and I completed interviews with 13 of them. Those contacted for

interviews and those who completed interviews were balanced between provinces, civilian and military officials, and the time period of study, as shown in Table 3.

I completed the interviews through a combination of personal meetings, phone calls, and videoconferences. For accuracy and to protect the participants, I recorded the audio from the interviews, removed any personally identifiable information while transcribing the content, and then destroyed the recordings. Throughout the analysis, individuals are identified only by the organization and province in which they served. For analysis of the interview transcripts, I created an excel table that separated key themes in the interview responses by agency and time. I also used NVivo for keyword searching of the transcripts.

Overview of PRT Experiences in Ghazni and Zabul

The PRTs in Ghazni and Zabul exhibited some broad similarities. PRT Ghazni was established in March 2004, and PRT Zabul was established in May 2004. In addition, civilian and military leaders I interviewed from both PRTs described having significant autonomy. A large part of the autonomy was due to provincial battlespace ownership by other countries in the coalition, not the United States. Throughout the time period of this study, the Polish Task Force White Eagle was responsible for the battlespace in Ghazni. One commander in Ghazni said, "We had more than our fair share of autonomy because the Polish commander had been granted a lot of autonomy from Bagram, from the 101st, from RC-East" (Interviewee 2, October 1, 2018). From the start of this study through July 2010, a Romanian Task Force was responsible for the battlespace in Zabul. A PRT commander in Zabul said,

> Everybody was pretty much hands off. They were just like, what do you need. Their priorities were not really, it wasn't so much that they weren't dictating what I needed to do, it was more like go in, learn as much as you can. And remember this was all pretty new. Nobody knew what anyone was doing. But, you had free reign to just make common sense decisions. (Interviewee 5, August 22, 2018.)

Starting in July 2010, U.S. forces took leadership of Combined Team Zabul, although Romanian forces remained in Zabul and still contributed to the combined team staff. However, the PRT remained generally autonomous until December 2011. 3rd Stryker Brigade Combat Team, 2nd Infantry Division, which assumed command on December 27, 2011, placed greater restrictions and controls on PRT operations (Interviewee 7, October 4, 2018). Still, the autonomy that PRTs in Ghazni and Zabul maintained for most of the period of the case study makes the PRT the right echelon level at which to consider project emplacement decisions.

The PRTs in Ghazni and Zabul also both seem to end in similar positions. PRT Zabul experienced a major attack in August 2011. On August 28, 2011, a 450 to 500-pound vehicle-borne improvised explosive device was detonated next to the wall of the PRT compound, followed by several suicide bombers (Interviewee 7, October 4, 2018; Interviewee 12, October 13, 2018). Later, in April 2013, another vehicle-borne improvised explosive device attack, this time on a Zabul PRT convoy, resulted in five killed in action (Associated Press, April 7, 2013). The attack was on one of the final planned movements of PRT Zabul, and the PRT ended its operations in May 2013 (Interviewee 12, October 13, 2018).

Just a few months later, in August 2013, PRT Ghazni faced a complex attack that resulted in seven killed in action and fifty wounded in action (BBC, August 30, 2013). Three months after that attack, at the end of November 2013, PRT Ghazni

was the last PRT to conclude its operations (DVIDS, November 27, 2013). These events create the perception of a strengthening insurgency at the time of each PRT's departure.

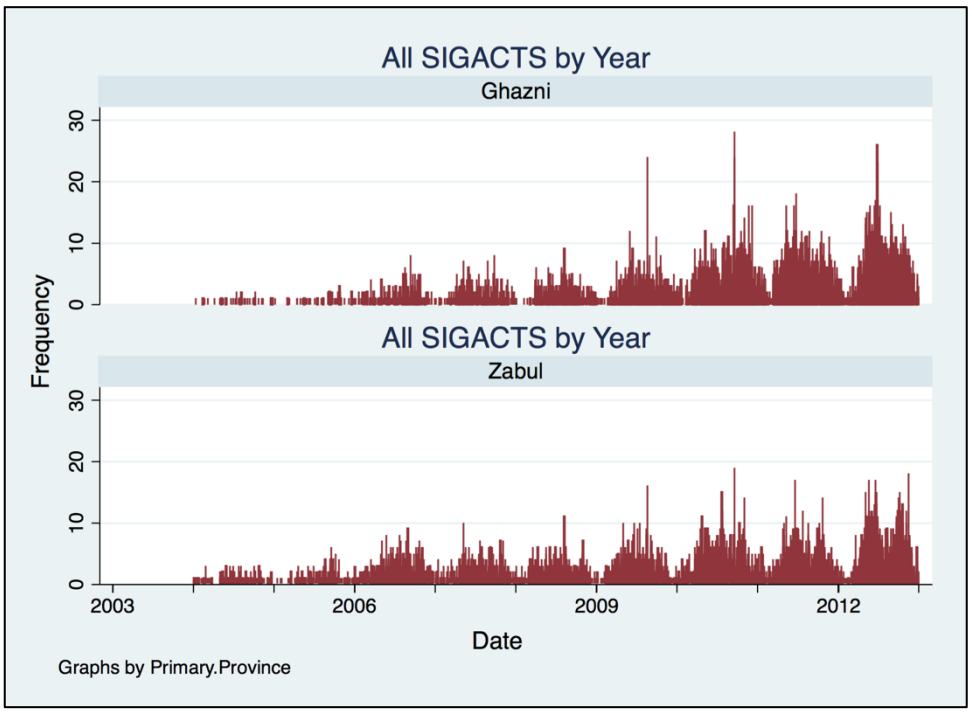

Figure 2a. Graph of SIGACTS in Ghazni and Zabul Provinces from 2003 - 2013

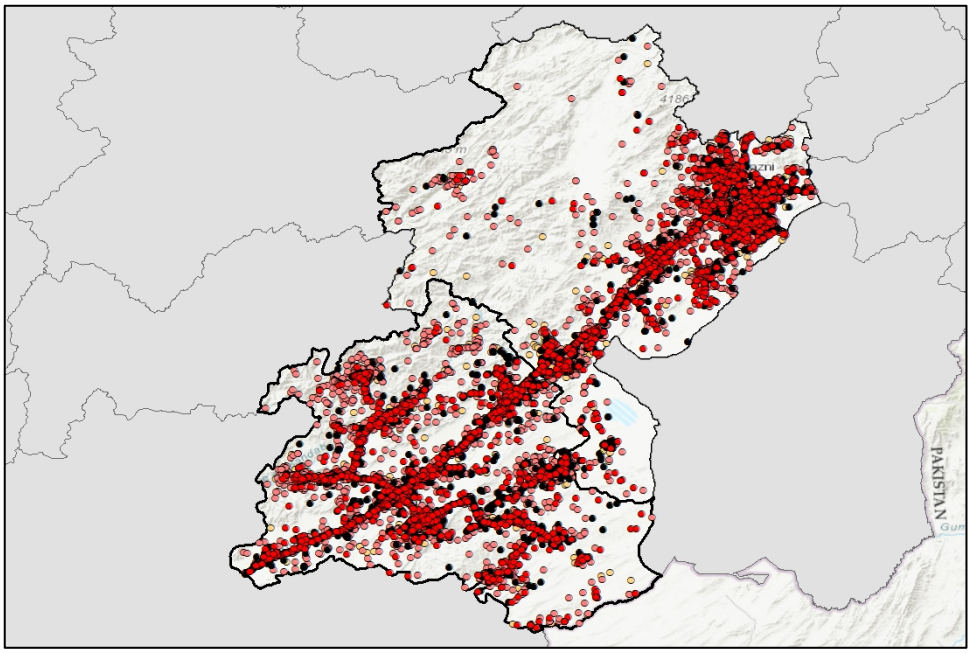

Figure 2b. Map of SIGACTS in Ghazni and Zabul Provinces from 2003 - 2013

Still, the paths of the PRTs in Ghazni and Zabul to these points were quite distinct. Media reporting suggests that Ghazni became volatile far earlier. Prior to November 2003, Ghazni was considered one of the few safe primarily Pashtun provinces, and international aid workers were able to operate independently in the province (Christian Science Monitor, November 19, 2003). The establishment of the PRT in Ghazni in March 2004 was described as a response to rising violence in Ghazni (Agence France Presse, March 4, 2004). PRT Ghazni was described as a case study of positive PRT influence in Malkasian and Meyerle (2009), but they also noted that violence did not decrease as a consequence of PRT Ghazni's efforts (23-4). This Ghazni case study from 2008 through 2012 identifies conditions that are consistent with what Malkasian and Meyerle found in their study of 2006 to 2008.

During the period of this case study, the interviews suggested several different types of environments within Ghazni. First, several districts were completely Taliban-controlled. Second, the four primarily Hazara districts had almost no Taliban influence or violence. Finally, the majority of districts were contested. In the contested districts, PRT convoys were targets of attacks, but those attacks were not described as particularly strong. One commander in Ghazni described,

> I guess there was one point when they were thinking about assaulting the base. We were getting all of this intel, and we basically started doing all of these base defense drills. They ended up not doing it. They basically ended up doing it what, two or three years later.
>
> Basically, I think they had been planning that attack for years. For whatever reason, they decided not to execute it our year. Basically, massive VBIED, break the wall, send in the suicide squad, see what you can do. So we were preparing for a major attack that didn't happen.
>
> There were daily attacks, but it was really just the insurgency kind of

> thing. They weren't trying to annihilate units. So, they would put an IED in the road. Once a week you would have a Rosomak, one of the Polish APCs [Armored Personnel Carriers], get blown up. And they would blow up the MRAPs [Mine Resistant Ambush Protected vehicles]—by then, we were all driving MRAPs. But, you never really saw the Stalingrad continuous meatgrinder. It was very much. Here's an insurgency. We will attrit you, and do just enough attacks to keep the pressure on. We did get, I guess it was kind of that continuous low level, I think it averaged every-other-day we were getting indirect fire at the FOB. (Interviewee 1, August 10, 2018.)

Thus, most PRT movement could be delayed but not inhibited by the threat. Yet, Taliban influence in the province also could never be stemmed. Figure 2a and 2b show Significant Activities (SIGACTS) recorded by coalition forces in Ghazni and Zabul, which make evident the insurgency's violent capability during the period of the case study. (Data courtesy of Shaver and Wright.)

Meanwhile, the violence that PRT Zabul experienced at the end of its operations did not follow a consistent level of violence in Zabul. Early in the time window of the case study, PRT members described that the Taliban was mostly interested in facilitation of men, weapons, and equipment through Zabul but not conducting attacks in Zabul. As late as May 2011, *The New York Times* suggested that Zabul was "a glimpse of what a stable future might look like as Afghans take over their own security and administration by 2014" (May 24, 2011). Yet, the attack in August 2011 and other attacks around Qalat the following year demonstrate the Taliban's capability and perhaps suggest a shift in Taliban interest as they started to conduct attacks in Zabul. A PRT commander said that the governor in Zabul attributed the complex attack in August 2011 as representing a response to PRT progress:

> I had a long talk with the governor about that. It was funny because he also was not in town when that attack happened. He told me that he thought it was that we were actually starting to make a substantial impact: that the few years that the PRT had been there, that they were becoming part of the community, the USDA guy was out doing his farm, we were out building bridges and schools and getting stuff done at the hospital, and we were maybe starting to turn the population as a whole, helping the government do that, and helping the government of Afghanistan do what they needed to do to support their own people. He kind of told me that he kind of thinks it was because it was becoming more and more positive that they decided to hit our FOB. That was from his mouth, not mine; I had only been there a few months when the thing had happened. (Interviewee 7, October 4, 2018.)

Although insurgent interest in attacking the PRT may have changed, insurgent capability is evident in Zabul throughout the case study based on the SIGACTS in Figure 2a and 2b.

Descriptive Statistics

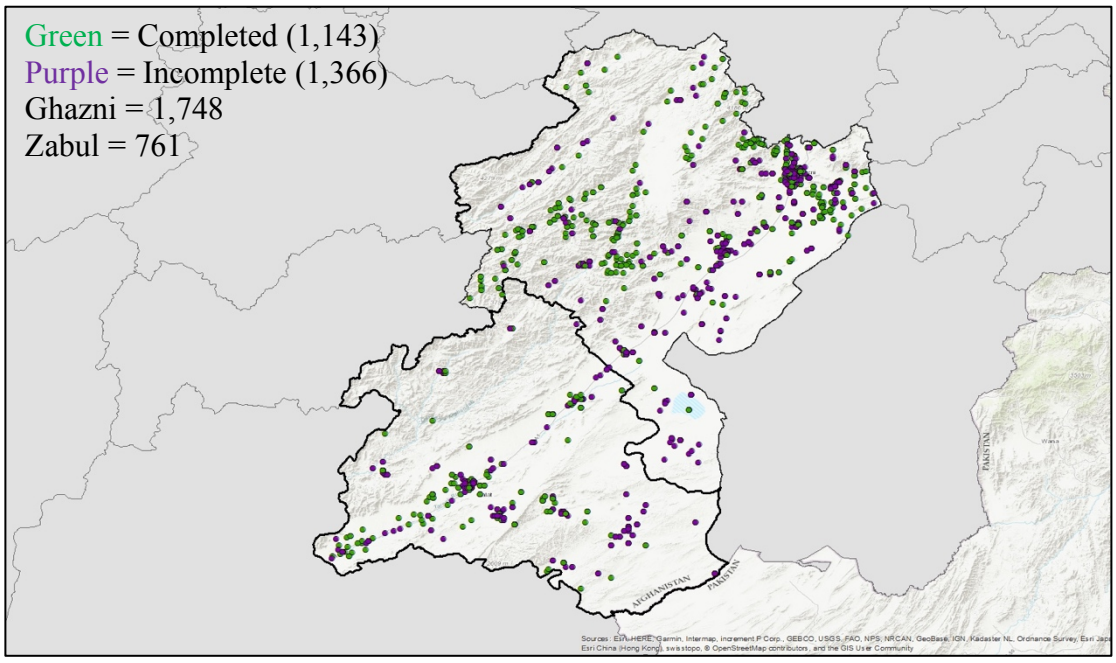

Figure 3. Planned Projects in Ghazni and Zabul Provinces from 2002 - 2011

Table 4. Planned Projects with Lat-Long by Province

STATUS_CODE	Ghazni	Zabul	Total
Active / Obligated	257	84	341
Committed	2	7	9
Completed	822	321	1,143
Nominated	23	56	79
Suspended	0	2	2
Terminated (Cancelled)	77	50	127
Unknown	567	241	808
Total	1,748	761	2,509

While conducting interviews, I also did quantitative descriptive work to allow visualization of development projects in Ghazni and Zabul. The data come from a NATO dataset of development projects in Afghanistan from 2001 through 2012. (Data courtesy of Shaver and Wright.) Some of the projects in the dataset have latitude and longitude coordinates. I verified existing coordinates and filled in missing coordinates using the "finder tool" within the Afghanistan Spatial Data Center (ASDC) to identify the coordinates whose village but not latitude and longitude are in the initial dataset.[5] Figure 3 and Table 4 capture 2,509 planned projects from 2002 through 2011 in Ghazni and Zabul whose latitude and longitude coordinates I could determine. From the spatial plot, there appears to be a difference in the dispersion of projects away from the highway in the two provinces.

[5] The ASDC is a geospatial tool developed by iMMAP with contributions from USAID, the Afghan Ministries, and the University of Maryland.

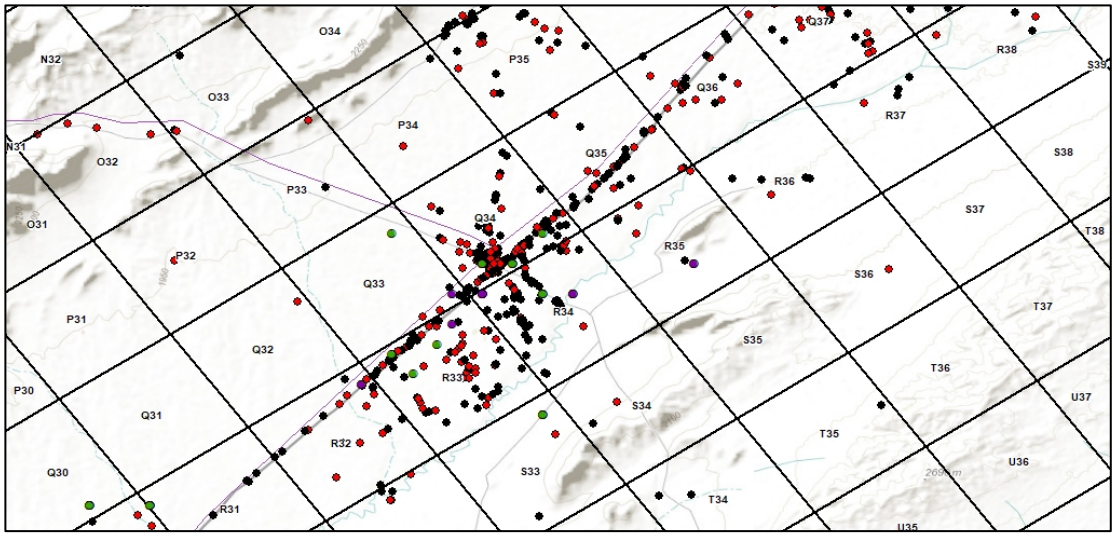

Figure 4. Snapshot of GRG

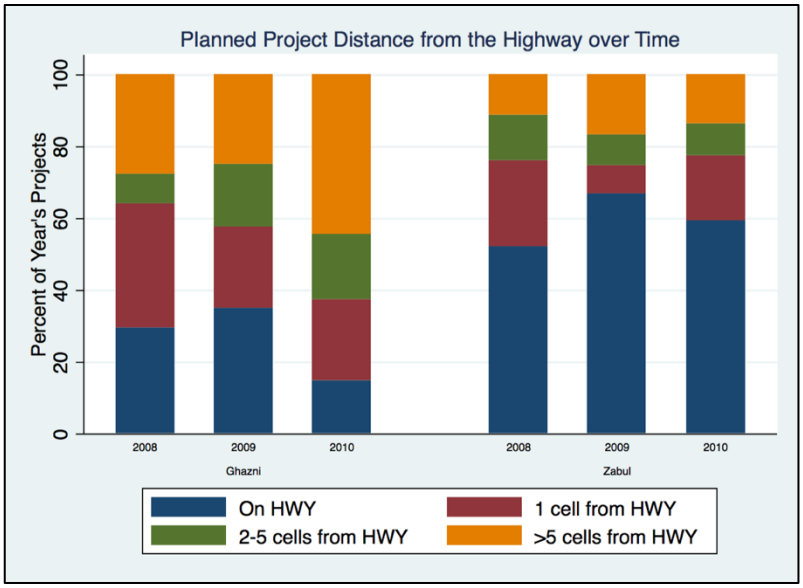

Figure 5. Planned Project Distance from the Highway over Time

To further this analysis, I created an overlay of five-kilometer by five-kilometer grids using the Gridded Reference Graphic (GRG) Python tool in ArcGIS. A snapshot of a section of that GRG in southern Zabul is shown in Figure 4. After creating the GRG, I used the intersect tool in ARCGIS to intersect the project dataset and GRG layers, which adds a variable indicating the grid in which each project falls. I also intersected an Afghanistan roads shapefile with the GRG to create a dataset that

captures each GRG grid cell with a primary road (Highway 1) or secondary roads. In Stata, I integrated the projects with grids dataset and the roads with grids dataset to create a variable that counts the distance from the highway for each project.

Subsequently, I graphed the distance in terms of grid cells that projects fall from the highway. To connect the quantitative analysis to the case study, I examine 2008 and afterwards. While the dataset includes projects from 2001 through 2012, for unknown reasons, there are only five projects in the dataset for Ghazni and Zabul in 2011 and none for 2012. Thus, only 2008 through 2010 from the quantitative analysis allow meaningful insight into the case study. The resulting graph, Figure 5, captures the difference in distance from Highway 1 for projects between Ghazni and Zabul. Zabul has a higher percentage of projects on the highway or one cell (within 5-10 kilometers) from the highway throughout the time period. In addition, while the percentage of projects on the highway and one cell from the highway is almost constant throughout the 2008 to 2010 time period in Zabul, the percentage of projects on the highway or one cell from the highway decreases each year from 2008 to 2010 in Ghazni. This difference contributes to the focus of the qualitative analysis: what factors are related to a PRT's decisions to project outward or concentrate centrally?

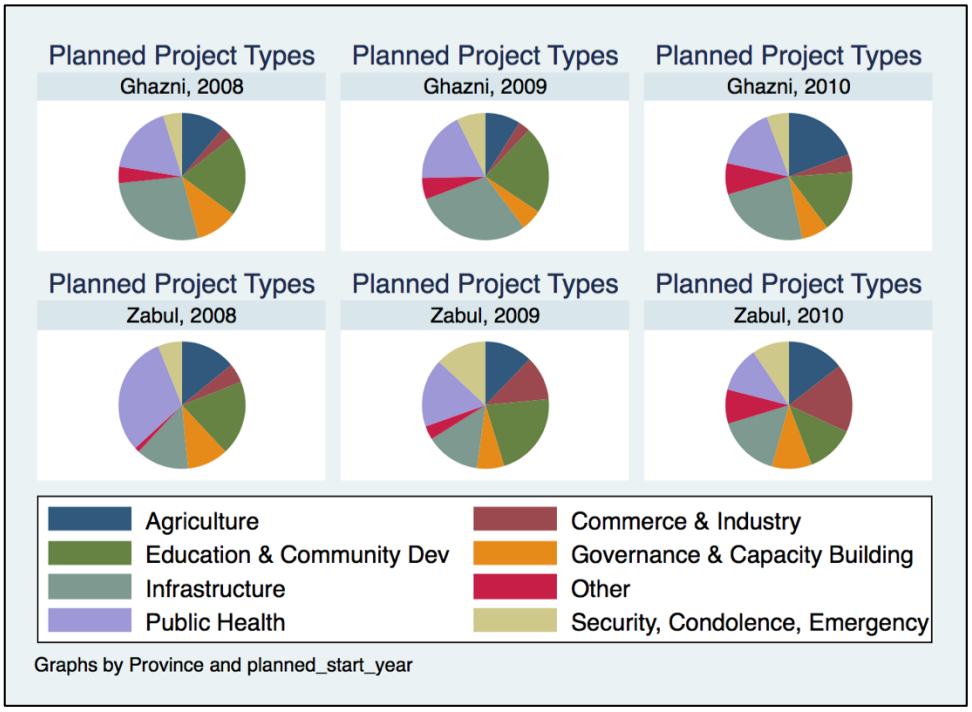

Figure 6. Planned Project Types by Province and Over Time

I also examined descriptive statistics related to the types of projects pursued in each province and over time during the case study (Figure 6). Three observations are evident from the descriptive data. First, infrastructure projects were more common in Ghazni than Zabul. Second, Zabul had a swell of public health initiatives in 2008. Third, both provinces have a downward trend in the number of education and community development projects from 2008 through 2010. I focus my analysis on the project emplacement decisions over the project type decisions because of the breadth of existing work on different types of programs and projects. Others in the past have considered which projects were undertaken but not where. I include a brief discussion at the end about the relevance of the type of project as another part of the effort to maximize resources.

How Decisions Were Made

Decisions about priorities for governance and development in Ghazni and Zabul were sometimes routinized and other times left to more informal conversations. PRT Ghazni tended to have more regular meetings for the purpose of prioritization, with their frequency ranging between bi-weekly and monthly. More frequent than the prioritization or planning meetings were weekly synchronization meetings or status updates at which PRT members would go through updates on each project. One Ghazni commander described, "We definitely had weekly meetings, but a lot those were more status updates. About once a month we would have to go through and rack and stack all of the projects" (Interviewee 1, August 10, 2018). Even with these regular meetings, PRT members in Ghazni often mentioned more informal discussions about priorities, including discussions of priorities over dinner. In particular, interactions with the Polish PRT in Ghazni were often done over dinner.

Meanwhile, in Zabul there is a little more variation, which seemed to come mostly from variation in the personalities of the commanders. In general, Zabul PRTs seemed to have more frequent smaller synchronization meetings, either daily or three to four times per week. This does not mean that Zabul PRTs were less engaged in planning, but larger bi-weekly or monthly type meetings were less common. One Zabul commander described,

> A lot of times what we had to do were late night discussions with me and the State Department guys and some of the folks on my team, we would just be like alright, this is how we are going to do this. Honestly, that's how sometimes decisions were made. (Interviewee 7, October 4, 2018.)

During the prioritization process, there is minimal evidence of disagreement on priorities between agencies in either province. None of the individuals interviewed mentioned outright conflict between agencies. Constant negotiations (Interviewee 10, July 24, 2018) and competing priorities (Interviewee 2, October 1, 2018) were mentioned but not true conflict. The lack of conflict could be either due to a spirit of cooperation, or a perspective that deployments were short enough that there was no incentive to raise substantial conflict. One PRT commander said,

> We just worked real well together. There was no animosity. I had never worked in this environment before. But, there was no bravado. It was, let's just work together and get this done. It was amazing, like I said, probably my best job ever, because everyone seemed to work so good together. (Interviewee 4, October 19, 2018.)

Meanwhile, one State Department official said,

> There wasn't a lot of out and out conflict about it. Again it comes down to, I am deployed for nine months, I'm going to keep my mouth shut, and I'll just do my thing, it's nine months, whatever. (Interviewee 11, October 9, 2018.)

The lack of conflict is somewhat surprising relative to the bureaucracy literature, which predicts more organizational loyalty and less willingness to cooperate.

What was common in both Ghazni and Zabul were the importance of meetings and interactions related to logistics—in particular, who was included on convoy manifests. While priorities were rarely disagreed upon, which agency had the opportunity to pursue its priorities depended mostly on logistics. One State Department official described,

> At that time with the commander, it was everyone tell us what you want to do. Ok, USAID needs to go to this village. At the same time, CAT A why don't you go there, and why don't you go there to meet with the village elders or the district administrator. A lot of it was

> kind of logistical. And how are we going to use the resources in the most efficient way. (Interviewee 10, July 24, 2018.)

Those who were most frequently concerned about being left off convoy movements were civilian officials. One civilian perspective was that

> I think there were pretty frequent disagreements, but a lot was fighting for resources and trying to get out, to look at your project or talk to your counterparts. You know, they say, to a hammer, everything is a nail, or whatever. So, to Ag people, it was all about economic development, and to the education people, it was all about school development. I don't know if there was someone who was really taking a step back trying to mesh each piece of it together. It was everyone trying to grasp resources to try to get out and meet with their counterparts. (Interviewee 13, August 6, 2018.)

Understanding these processes of prioritization and subsequent competition for resources frames the discussion that follows about the challenge of maximizing resources.

The Challenge of Maximizing Resources

Logistical resources were a constraint for PRTs in Ghazni and Zabul throughout the case study. This was true both before and after the surge. Before the surge a funding constraint was more relevant—although it was only noted in Ghazni. But a theme in both eras related to logistical constraints. A Ghazni PRT commander before the surge described,

> The Taliban are just like, the U.S. don't have their hearts here and it's remote, and we're going to kick it up a notch. We were spread thin there. You can't be everywhere. We would get calls, these guys are in a mosque, there's all these Taliban. We would report it up the chain, and they would be like we don't have any assets to get there. EOD wouldn't be able to get there either. The Taliban certainly knew that. (Interviewee 4, October 19, 2018.)

PRT commanders in Zabul before the surge also described the challenge of

reaching the entire province. One commander said, "I've got 100 guys and an area the size of Connecticut to provide reconstruction and development and stability operations to. No way you can do that, right" (Interviewee 6, August 27, 2018). Another Zabul commander said, "There were geographic limitations. There were areas that you were not going to go." (Interviewee 5, August 22, 2018).

While the surge in Ghazni emphasized reaching outlying districts, logistical challenges remained. A State Department official in Ghazni during the surge described,

> We had such constraints on our movement and such limited resources that we were not able to get out and see projects and see programs as much as we should have, or certainly as we would have liked to. (Interviewee 9, August 28, 2018.)

He continued and addressed whether the constraints were due to the threat or due to resources:

> I could have done a lot more if I had more freedom of movement. We had security constraints, but had there been double or triple the number of vehicles and bodies and security escort mechanisms, we could have done a lot more. We were picking and choosing who got to have a key meeting on a given day.
>
> On a given day, we would have these mission planning exercises where it was like, alright, no one has been to Deh Yak in three weeks, we're going, what do we want to accomplish there. Then, everyone was throwing up their hands. The Polish water guy wanted to go out there because his predecessor left a note about a program that they could have done. AID said they wanted to go out because they never did anything to go outside the wire and that was the closest they could get. I had my goals and agendas for who to meet with. (Interviewee 9, August 28, 2018.)

In response to logistical constraints, two innovations were prominent: the establishment of PRT sub-units or District Support Teams (DSTs) and PRT collection of logistical resources. A DST was started in Deh Yak District of Ghazni in July

2011 when Ghazni PRT received two additional State Department officials. In a press release, the new State Department team lead described the way in which the DST addressed the logistical constraints faced by the PRT:

> "We are starting a district support team," said Dominick Aponte, State Department team lead. "It is a smaller version of a PRT, but we are able to work more closely with the district governor. Where the main PRT can only get out [to the district center] once or twice a month, because I'm so close, I'll be able to get [to the district center] once or twice a week." (DVIDS, December 5, 2011.)

Later, the PRT commander also split his PRT between Ghazni City and another location on the border of Uruzgan where they could more efficiently reach western districts in the province (Interviewee 3, October 10, 2018). When asked whether more teams at the district level would have had different effects, the Ghazni PRT commander said,

> Yes, we split into two to try to address that specific thing, but we still ran into the security issues. While we could be in two places, we still had the security issues that existed, and we specifically tried to do that in order to maximize effects. I would say for the level that we put into it, we got like a 30 percent return. It wasn't a one-for-one as we split the PRT in two. (Interviewee 3, October 10, 2018.)

That commander also took advantage of relationships to expand the number of personnel he had available. He described,

> I happened to finagle to get more forces assigned to me more as an interpersonal type of thing, and that lined up with the Army units that were coming, so I got more than my fair share if you will. (Interviewee 3, October 10, 2018).

Meanwhile, Zabul PRT decided to split their forces into four outstations and also benefitted from acquisitions of additional resources. A Zabul PRT commander described,

> I had four locations. I basically had one platoon of Army guys from the Massachusetts National Guard. So that was the plan. I split up the squads. So I had ten civil affairs folks from the Army reserves, and I divvied them up as well. I essentially guided what the three outlying teams did, and we coordinated their efforts centrally, but I let them do their own thing. (Interviewee 7, October 4, 2018.)

That commander also noted,

> One of the biggest challenges [of getting out] was logistics. [The previous commander] had hoarded a bunch of MRAPS, some of the original ones that were left by the Marines. Somehow [the previous commander] had acquired quite a few extra vehicles. When I rolled in, we had in total maybe 50 MRAPS, different sizes, different models. So, I was able to pick-up and move and go to places, check things out, and get things moving. (Interviewee 7, October 4, 2018.)

Even with the additional resources, there were still logistical challenges:

> There are places that you go, and there are places that you don't go. The only thing about the outlying areas was that it took longer to get there. That was what made it difficult for us. In order to support our own guys sometimes, we would have to launch missions out of Qalat and it would just take forever.
>
> It was just simply easier in Qalat because everything was there, and we could get to everything in a half hour or less. That was one of the strengths of having those outlying places. In most cases, they could be to everything they needed to be at in 30 minutes or less. They didn't have the same level of resources that we did, but I always tried to—and this is true of all of the PRT commanders—to give them as much leash as possible in order to affect change and get things done. (Interviewee 7, October 4, 2018.)

Resource limitations with funding and contracting processes were relevant for PRTs at different points in the case study and for different reasons, but the most common refrain was logistics. One State Department official summarized well the challenges and tradeoffs of projection and concluded that the time and resource requirements for stabilization would always be significant as a result:

> It's such a complicated question. I am thinking what are the lessons we should have learned from what we have tried. We tried the whole

> provincial thing, we tried doing some DSTs, but all of this stuff takes more time than I think we gave it. But, it's also personality-driven and skills-driven. There's little bit of art to going out and engaging in local communities. You can't just send any old person out there. Most of the Americans that went out there, what 99% of them, did not speak the local language, so you were always going through an interpreter.
>
> I don't want to take away that going out and engaging in the local area was a waste of time. Stabilization is just always going to be time and resource intensive. There is no good, efficient way to do good stabilization. What we were always looking for was what was the least amount we could do for the biggest bang, and I'm not sure we ever got to the point where we were doing all the things we needed in order to actually stabilize. (Interviewee 11, October 9, 2018.)

Because logistical resources were always short, resource maximization became central to PRT decisions about where they could support projects. Some conditions aggravated the projection challenge and others enabled efficiency.

Conditions that Constrain Projection

Three conditions related to resource maximization made it hard to project away from the provincial capitals and the highway: maximizing benefits for Afghans, supporting Afghan provincial leaders, and unifying U.S. agency priorities (Table 1). The placement of value upon these conditions is both logical and doctrinal. Thus, describing these conditions illuminates where logical, doctrinal principles can create tensions that may need to be addressed in evolutions of counterinsurgency and stabilization theory.

Maximizing Benefits for Afghans

Concentration on governance and development efforts in the center—near the capital or along the highway—is logical for having the greatest popular impact. Greater population density means that more people have the potential to benefit from

gains in development. While this logic has pertinence in both Ghazni and Zabul, it was more frequently referenced by respondents in Zabul. One Zabul PRT commander said,

> Well, like I said in the south we couldn't [do projects]. In the north we couldn't [do projects]. The time distance part of it, it would take days to get up there. And, the risk versus reward wasn't there. So, low populace areas, they aren't going to be in communication with the governor. In the south, same thing in the north, they run their own thing up there, I am sure it was a Taliban haven.
>
> So we just tried to work from the middle of the province, like Highway 1, and just start stretching north and south to a point. It wasn't worth getting out there and putting our guys at risk for the few people. Unless the government is extending its reach out there, I don't see why our forces, in this kind of environment, need to be stretching out there, unless it's a kinetic type of thing. I don't see a whole lot of benefit in that. (Interviewee 5, August 22, 2018.)

If achieving the greatest popular impact is the predominant perspective, there is less incentive to project away from population centers. Existing doctrine tends to weigh popular effect over geographic reach, leading to some pressure to focus in the center.

Supporting Afghan Provincial Leaders

Another potential headwind to projection is the need to interact with the leaders at the provincial level. Most often these interactions were with provincial governors, but they were also sometimes with provincial councils. While governors were imperfect—and the PRTs leaders interviewed readily acknowledged that—PRTs had a general interest in supporting the governor's priorities. The provincial government's legitimacy logically flows from fulfillment of the governor's stated priorities. One PRT commander said,

> You don't want them [the local population] to follow the Taliban; you want them to follow the governor. So make the governor seem like he

> is doing, what is he supposed to be doing, governance. So everything I did was to support that governor to the best of my ability whether it be reconstruction and development, whether it be Rule of Law. I didn't weigh one any more than the other one. We didn't really have a priority there, other than when I said this would make people want to follow this guy, I was more supportive of it than just simply putting up a school in the middle of nowhere or this kind of thing. So development itself wasn't it. (Interviewee 5, August 22, 2018)

The statement that it was not just about development but also about the governor's priorities is important. A State Department official also asserted that while the governor's priorities were imperfect, they did demand at least some PRT attention:

> At one point the governor had said, "we're going to green this up. We're going to get water here. We're going to green it up." So I would always joke with [the commander], "Green this up. Green this up." It was a lot of responding also to what the governor wanted, what the provincial council wanted. (Interviewee 11, October 9, 2018.)

Governors in both provinces also tried to pull priorities toward large, urban projects. In 2011, the governor in Ghazni began advocating for major modernization work in Ghazni City to prepare for a festival in which Ghazni City would be named the "Islamic Capital of Culture." According to *The Guardian*,

> [The governor's] 2013 wishlist involves 57 miles of surfaced road within the city, a fully functioning electricity grid, bus stations, a sports stadium, a proper sewage system, hotels, airport, a cold storage facility and public parks running along both sides of the river that will 'give a very beautiful scene.' He also wants a pounds 19.5m 'expo centre' complete with theatre, library and an exhibition hall. (June 9, 2011.)

About the governor's prioritization of the festival, one Ghazni PRT commander said,

> That was high on [the governor's] priority. He wanted infrastructure to support that. He wanted buildings A, B, and C. I think the Polish PRT kind of caved to some of that. The way we addressed a lot of it was we are going to make it easier for people to come to the city with a lot of road and street development. He was pretty ok with what. He wanted more to support that event, but it wasn't necessarily in line with what we wanted to achieve as a PRT. We weren't there to

> improve infrastructure for a big ceremony. Kind of like all of the money that goes into the Olympics and then what. We built the Olympic village, ok great. We tried to keep that conversation at arms-length. (Interviewee 2, October 1, 2018.)

A similar push for "New Qalat City" in Zabul was smaller in scale than the festival in Ghazni, but the governor's passion and the challenge for the PRT sound quite similar. An article in *The Otttawa Citizen* described,

> This is New Qalat City, a yet to be completed business park that includes a governor's office, hospital, courthouse, women's centre, bank and fire station. They are empty modern edifices, only some of which are barely functioning. They sit disconnected in sand, yet to be linked by modern infrastructure. USAID hopes some other international donor can be prodded into investing in the completion of the project, that someone will come along and build roads, install a sewer system and connect it to the electricity grid. (March 29, 2008.)

When asked about whether the Zabul governor had specific priorities, one PRT commander said,

> He did. They were somewhat misguided I think. There was a new area of town called New Qalat City. He was like I want everything to look modern, and everything new. They spent a lot of money, some previous PRTs, I guess. It also was—it could be a target as well. It wasn't the city. It was just a new building, and everything was supposed to look nice for Afghanistan. That was a priority for him, but it didn't really affect everyday people. (Interviewee 5, August 22, 2018)

Thus, PRT commanders had to maintain restraint with supporting the governor's priorities because the governor's priorities were overly concentrated. When asked if the governor's interests were limited to Ghazni City, one PRT commander said,

> I would say that was the priority of effort that he was shooting for. But he understood the necessity for other ones. In many cases, he gave his full support. But you could tell, the farther from Ghazni City you got, the quality of district sub-governors also changed. (Interviewee 3, October 10, 2018.)

About navigating that relationship with the governor, that same commander said,

> I was not giving everything. It was alright governor, I will do something for you but you need to help me help you. I can't want this more than you want it. (Interviewee 3, October 10, 2018.)

And he later said,

> I also understood that [the governor] needed to retain power and maintain his 'wasta.' So when the point came that I was interacting with the village elders, the village chief, the sub-governors, and the governors, I was 100 percent on the governor's side because I wanted to show a unified front. So it was very, very, very much a balancing act, which was much more difficult than you would think. (Interviewee 3, October 10, 2018.)

At the same time, projects could not be successful without the governor's support.

This same commander in Ghazni said,

> I would put it as projects were more successful where the governor wanted there to be security, which was his primary interest areas. (Interviewee 3, October 10, 2018.)

Similarly, another commander in Ghazni shared:

> We had sort of been given the instruction, and I think I tried to coordinate everything with the governor—I don't say through. But we learned early on that it was not a good idea to have something happening that the governor did not know about. (Interviewee 9, August 28, 2018.)

A similar theme emerged in Zabul: maintaining a relationship with the governor and supporting the governor's priorities without becoming an agent of the governor. A State Department official in Zabul described,

> What we tried to do was listen to the governor, listen to the provincial council, find out what they needed and try to support them. One of the things that the governor wanted to do was to go on a military expedition and retake all of the districts. There were a couple of districts that nobody could set foot on except the Taliban. He wanted to take off on his own with his own provincial army and go do that. That was not going to happen. But, other things, when it came to

> governance, we did what we could without giving him money for it. (Interviewee 12, October 13, 2018.)

Thus, while relationships with governors were central to PRT success, the governor's limited interests presented an unavoidable constraint. PRT decisions must be seen as careful management of this relationship. In this light, some PRT decisions that were center-focused may have been for the purpose of relationship management.

Unifying U.S. Agency Priorities

A final headwind for projection could be trying to unify—or mass—the focus of the different U.S. agencies. This pressure only emerged in one interview with a PRT Zabul commander, and it did not impose severe restraint. Still, this potential headwind is relevant for future inter-agency institutions.

One Zabul PRT was particularly deliberate about mission analysis and unity of effort across agencies. That PRT developed a nine-month to year-long long-term strategy, and they concluded that the best way to use their resources was immediately around Qalat City. The PRT commander described,

> We came up with a new toolbox. We said ok, we aren't going to build anymore goathouses. When we said goathouses, we meant construction projects out in the hinterlands because there's no sustainability for them, or there's no force protection, to protect those schoolhouses and things, unless a local community wanted it and they would provide a teacher. That was one of the problems was that they didn't have the human capital to sustain it. So if a town asks for a school, they basically wanted employment for folks to build something, but they became goathouses because they didn't have a teacher there to run the school. So we only did projects that were sustainable.
>
> We kind of looked at—the interagency team—kind of looked at the environment we were in and said really the only secure location is Qalat City itself because you had the Afghan National Army, you had police there, and some infrastructure that we could work with. And,

> there were doctors and teachers. So we focused on those things that already had a baseline foundation and started adding to the layers, started building that up. (Interviewee 6, August 27, 2018.)

That same commander later described his thinking:

> Me and my DO [deputy] and each of the inter-agency reps, so State, USAID, and ag. So we all coordinated and made sure it [the long-term plan] was good. Then, we shared it. The one thing we wanted to do was build unity of effort. So you had, at the time I would brief, there were 13 different organizations there, and at the time I got there, it felt like everyone was doing their own thing.
>
> We would fratricide each other on reconstruction and development. The Afghans were very savvy, they would play one off the other, and say, hey, we didn't get anything. Meanwhile, someone had brought something for them or done something for them. So it was really synchronizing our efforts.
>
> And, there's reasons why. One, we wanted to reduce that fraternization. Two, we wanted to build that unity of effort and mass our resources to help the Afghans stabilize the area. Another important reason for us to do that was preservation of the PRT. (Interviewee 6, August 27, 2018.)

This anecdote is important because it shows how a well-intentioned unity of effort across agencies could constrain focus. At the extreme, if every PRT effort is to have something for every agency, there are only a limited number of places where all agencies have an interest.

Ultimately, this constraint was not as significant as the commander initially described. During the same time period, the Zabul PRT started sending inter-agency teams to different districts in what they called a Mobile District Reconstruction Team (MDRT). ISAF Headquarters announced:

> The MDRT is focused on reconstruction and development in the districts which lie beyond Highway 1, and are taking advantage of counterinsurgency windows of opportunity to bring isolated communities basic services. In the past, the PRT focused on the Zabul provincial capital city of Qalat and highway 1 as the civil centre of

> gravity. The operational purpose of the MDRT is to decentralise the efforts of the PRT and expand the influence of the legitimate government into outlying districts. (US Fed News, January 3, 2009.)

About these efforts, the PRT commander said,

> Now it's hard for us to do something sustainable out at these remote areas, so that's why we came up with the DRT with the small projects that they could leverage or the human capacity expertise, like medical expertise, or agriculture, or engineering expertise.
>
> We tried to bounce them. I didn't have that many folks, so sometimes I would send the same personnel to several different locations. But, we would mix it up. One week they would go up to Shah Joy, another time they would go up to Day Chopan, wherever there were U.S. or Romanian forces.
>
> That was the concept, I would send out docs, engineers to these remote areas, also the inter-agency reps like the Ag or the USAID reps, and they would bring out their tool bags and say, ok, this is what we are going to do for you, and here is what the needs were, and network with the folks out there. (Interviewee 6, August 27, 2018.)

Thus, unifying agency objectives was not all constraining, but at the extreme, the potential exists. When thinking about projecting development, it is at least worth considering that principles such as unity of effort and massing effects that make sense in most contexts could impose limitations.

Conditions that Support Projection

Amidst the headwinds, there were four conditions that supported projection: valuing equitable geographic dispersion of goods and services, leveraging local leaders with large social endowments, tolerance of financial inefficiency, and separating U.S. agency objectives (Table 1). All of these conditions were not necessary for projection to occur, but they tended to support it. These conditions are noteworthy because they each run somewhat counter to concepts of population-

centric development, efficiency, and robust policy-making.

Valuing Geographic Equity for Afghans

Whereas valuing development for the most people produces centralization, valuing geographic equity supports projection. This point might seem self-evident, but it is significant in the sense that geographic equity is not heavily emphasized in counterinsurgency or stability doctrine. Counterinsurgency and stabilization doctrine emphasize population-centric considerations—logically so because the ends are political control of the population—but PRT leaders also felt the need to pursue a geographic balance outside of doctrine. One PRT commander put it simply,

> We did as much as we could to everyone for everyone. Imagine if the government only responded to Alabama when there was a state of emergency and not Florida, there is a lot of dissent there. We tried to be consistent across the board and prioritize those projects that have the major impacts in all of the districts that were there. (Interviewee 3, October 10, 2018.)

Still, applying geographic equity had some complexity. The same commander described,

> I started with the economic centers to be honest with you. If you look at Ghazni central, alright, let's see what's going on there. Ok, we've got that, what's the next step out. You have the different district centers and the infrastructure around there. Ok, well, we need to develop the streets to make sure that they can sell during the winter during inclement weather, and we need the sub-governor to have a place where he can live, a place that he can hear people talk, and a place that will improve economic development, so a road project, water projects, housing type stuff, hospitals. You know, big on the medical side, we would do that. Once we got the main ones out, then we want to make sure that all of the districts had an equitable amount of development.
>
> We looked at those that generated the most income and started building those, and then looked at those that we wanted to show the government cared about everything. And then the smaller ones that

> we put efforts into those. And then the ones that were highly contested areas, we would go visit, and we would start dialog to do it, but it was all contingent on the government and the security forces being able to lock down those areas. If they were unable to do it because of contention, because of X or because of Y, I knew that whatever we built would be destroyed. I would politely decline and go to another spot where I knew would be more. (Interviewee 3, October 10, 2018.)

In Zabul, the PRT found that the provincial council had a broader focus than the governor, and this perspective helped with operationalizing geographic equity. Speaking about the role of the provincial council, a Zabul PRT commander said,

> The council, one of the things that they emphasized to me was that we were hitting the people not just in Qalat City or not just in Shah Joy. [The previous commander] was kind of the same way. He was like, we need to get out in the country-side. When I had the brakes put on me by the one brigade, then I found that all that we were doing was work either very closely to Qalat or very closely to where my outlying units were. To me, you disconnect yourself from the population and they become resentful. And they did, you could sense it. (Interviewee 7, October 4, 2018.)

That same commander also described that while it was more taxing to have his troops decentralized and working on development in more remote areas, he also felt it was appropriate:

> I didn't like having the guys out there doing this stuff. I was a little uncomfortable about it, but I knew it was necessary. If the Afghans saw us coalescing around the governor, to me, that didn't look good. Part of the thing that you deal with is perception. So we had 300,000 people in Zabul Province. I was trying to reach out to as many of them as possible, in some way, even if it was only a small thing, to try to do something good that was long-lasting that they could support themselves. It wasn't just to go in there and just to drop a big bundle of money and leave because that just doesn't do any good to anyone. (Interviewee 7, October 4, 2018.)

Hence, it took commanders actively pushing beyond centralized development for projection to occur. Without active commanders, the system would reach an

equilibrium with more centralized development. Considerations of geographic equity may need a greater place in counterinsurgency and stability doctrine.

Leveraging Afghan Local Leadership

The interviews made clear that projection from the center was ineffectual without local leader support. One PRT commander in Ghazni told two meaningful stories. In one, a district sub-governor who had known relationships with local Taliban was able to facilitate all of the schools in his district opening—a notable feat compared to an estimated 30 percent of schools that were open nation-wide. In the story, the district sub-governor arranged for a district education official—who had known Taliban connections—to review new school textbooks with the PRT. The education official reviewed the books, removed only two pages of text, and affirmed that the books were appropriate for the schools in the district. The schools were able to open presumably because local Taliban were brought into the process and could accept the school texts (Interviewee 2, October 1, 2018). The PRT commander also noted that the district sub-governor's influence was not limited to education development. Because of the relationships the sub-governor maintained, the PRT commander described, "He had a little bit of a dirty background, but man he was getting stuff done. When projects were done in his district, I can't think of a single one that failed or that happened to stop" (Interviewee 2, October 1, 2018).

In a second story, the same PRT commander described an instance in which they did not have support from local leaders in a village they were trying to assist. He described that

> A lot of guys didn't want resources because it would make the security situation worse for them. I personally didn't understand that really until I saw it for my own eyes. How could you not want some free warm gloves, clothes, socks, and jackets for your kids as we roll into the winter and the snow starts to fall and your kids don't have anything. But it was like, we just don't want it.
>
> Well, I'll tell you what, we're just going to leave this here because some of the ladies over here say that they do want it. And this is a true story.
>
> Then, that night on ISR [an Intelligence, Surveillance, and Reconnaissance video feed] we are watching a massive bonfire in that village. We go back the next morning and sure enough everything we left there was burnt to a crisp. And oh by the way, there were two freshly dug graves right there. It turns out, I know one of them was a local female and the other one we didn't get details about. But it was like a punch in the face, it was like, when you do try to force the issue, look what happens. Not cool. (Interviewee 2, October 1, 2018.)

It is noteworthy that local leader support was necessary to make remote projects successful. There is minimal evidence that leader support could come after successful projects.

A State Department official in Zabul had a broader reflection about the central role of Afghan leadership. The official shared,

> The line of questioning again comes down to it's not all about us, but it's about the Afghans. The Afghans had to have ownership. This wasn't our responsibility one way or the other. Because when you say that, what I think to myself is that we needed more Afghans who took ownership of this over just trying to survive. So if we had more Afghans involved, and could have had more engaged Afghans, but again, I don't know if we ever understood the dynamics of local politics in Qalat or in the entire province. What this comes down to is that it is never just up to us—what the U.S. was doing, or what the NATO troops were doing. (Interviewee 11, October 9, 2018.)

Here, the importance of Afghan leadership comes through as obvious, but the commitment associated with understanding the local politics should not be

understated. If time is not taken to identify willing and capable local leaders, projection from the center is either not possible or not worth repeating.

Tolerating Financial Inefficiency

PRT commanders in Ghazni also consistently noted that completing development projects away from the center required greater acceptance of financial inefficiency. Funds for successful projects in remote districts required accepting that all of the funds in the contract did not go directly into the project. One PRT commander explained,

> But the ones like in Andar, the Taliban essentially had an approval process too. Sometimes our contractors would come by and they would factor into their bid basically a bribe to pay the Taliban to let them build it there. Once the contractor said hey, I can build this. The Taliban had essentially already approved it for the area. So once they did that, ok, it was going to get built. But, there were plenty of proposed projects where magically we can't find any contractors who will bid on this because for whatever reason the Taliban didn't want this to happen in this area. (Interviewee 1, August 10, 2018.)

Another commander shared,

> I do feel pretty strongly though that we have taxes in America, and in Afghanistan they purposely overcharge you and they use it just like taxes. They use it to fund security. They use it to hire guys to kind of work the seams with some of the local Taliban guys. They hire some guys to kind of lobby with GIRoA, with district leadership. They do all this stuff, and the media would say, they spent a million dollars for this and they only spent 500 thousand on it.
>
> We did the analysis. It's like, ok, some of that might be true. I am sure some of that money might be pocketed but I guarantee they also kind of hired an underground security force. They also did some kind of sketchy contracting and lobbying to get stuff done.
>
> There was a lot of over-charging going on, but there was also a lot of stuff that they needed to get stuff done that wasn't a part of the PRT CERP process. By the definition, was it misappropriating, absolutely,

> but did they need to do that to get stuff done, absolutely. (Interviewee 2, October 1, 2018.)

What the commanders describe makes what is sometimes seen as corruption appear different. Funds not used directly for the project were a part of coalition-building. That this system works provides some evidence that local Taliban were responsive to economic incentives. One commander noted that "Local Taliban is a very easy way to describe thieves and thugs" (Interviewee 3, October 10, 2018). He also said,

> There was a lot of, if I don't get my cut of the money, the Taliban miraculously started attacking. If they got their cut of the money, it was pretty convenient, the Taliban were not quite as active. (Interviewee 3, October 10, 2018.)

Still, tolerance for this system is not entirely intuitive or comfortable. One Ghazni commander noted that it took time for him to accept this type of risk and inefficiency. He said,

> So we had a road, karez cleaning, canal cleaning project. I am sure that the Taliban were taxing it. Some of the guys doing it, might have been economic Taliban. One because we wouldn't allow any mechanical devices. I didn't want the Taliban taxing any engineers that came in and extorting money from us. So, you know, here are shovels, you are going to work all day, six dollars, because that's the going rate for a day's labor. You're going to be tired, but you can feed your family and look at it essentially as competing with the Taliban economically where probably at the beginning I wouldn't have done that.
>
> But at the end, since there's never a good answer in Afghanistan. There's no perfect answer. If there was a good answer, we would have done it, but you're just choosing among your least-worst options. You know, this one is the least-worst, ok. This is good, I am going to pay these guys six dollars a day to clean out this karez, knowing that the Taliban are probably taxing them a dollar, dollar-fifty a day. (Interviewee 1, August 10, 2018.)

This perspective is not typically embraced by inspectors general or anti-corruption advocates, but this case study illuminates some of the necessity of accepting financial

inefficiency for projection. Standards of zero tolerance for corruption among local residents would lead to zero projection.

Separating U.S. Agency Objectives

Finally, it was sometimes evident in Ghazni that separating the objectives of different U.S. agencies allowed greater projection. This condition is the converse of the effect of unifying agency objectives that was sometimes evident in Zabul. It was not true in every Ghazni PRT, but some PRTs allowed the different U.S. agencies to operate a bit more separately. One PRT commander captured the condition:

> We always talk about the illusive 'Whole of Government.' It was definitely not a 'Whole of Government' integrated strategy where all of the objectives were aligned. It was each agency is pursuing its own objectives. And they were very different, so hey State cares about the library and Rule of Law, and trying to get some semi-legitimate judges there, and obviously public diplomacy—the Lincoln Center—and they're going to build that in Ghazni City, which is great and hey it meets their objectives. Whereas, USAID and the Department of Agriculture, they would never have come up with those projects, so they were like great.
> Same with the PRT, we were like wells, basic health clinics, schools. I guess I would say multiple organizations working in parallel. But, it was not that illusive or mythical 'Whole of Government' where there was a proconsul or viceroy looking at the entire dynamic of the situation saying, here's what we do. (Interviewee 1, August 10, 2018.)

A State Department official in Ghazni also described a free-flowing relationship between agencies where priorities depended more on when funding was available than a synchronized plan across agencies:

> We didn't really develop a year-long plan. Remember the guys were deployed for six-month rotations but between getting up to speed, and inventory, and out-processing, it is four-and-a-half to five months at best.
>
> We kind of were able to just keep working together and evolve based on how our funding was coming through, what we were getting

> permission to go do. All of that was with the sort of the overlying framework of trying to get out to more places along the way. When you add geographic goals and everybody is allowed to bring a little bit of money to it, it wasn't too hard to develop our plans and priorities. (Interviewee 9, August 28, 2018.)

There is some irony in this condition. A vigorous interagency process is valuable for thorough policy-making almost without exception. But inter-agency synchronization is not costless.

The Role of Project Type

What was also common in both provinces was a trend toward smaller, more sustainable projects and greater investment in human capital as an alternative to a focus on infrastructure or economic activity. This trend was driven both out of concern for sustainability and growth of cultural understanding. In Ghazni, one PRT commander described,

> The one thing probably in retrospect, yea, we built needless things, things that weren't really fitting. But again, it makes the donors feel good. At the time, the storyboards were big. And, we can make all of these storyboards about all of the great things we are doing, and everyone loves the picture of us building a health clinic. Well, look, we built this, but somehow Afghan society survived thousands of years before we decided to show up and build a well here, or build a school house here. They were as much for our benefit, look at all the great things we are doing, as they were actually for the benefit of the people of Afghanistan.
>
> And, this would be tricky. We kind of focus on physical infrastructure because there's a way you can measure it, there's a way you can build it. If there is a way to focus more on human capital and building a cohesive society—which is a not a quick process. But, if there is a way to shift the emphasis to the human capital development, I would try to do that. (Interviewee 1, August 10, 2018.)

Another Ghazni PRT commander had a similar perspective on the movement away from infrastructure, instead placing an emphasis on sustainability:

> I think when we went there, we had a feeling that infrastructure development was really important. I think as time went on during our deployment, we realized it was less about infrastructure and more about basic necessities. I think our projects started shifting a little bit more toward basic necessity type stuff.
>
> For example, if you are in a little region and what is being used for a school is literally the backyard of a qalat with a little shade tent stretched between two walls. At the beginning of the deployment, I would say our collective response would be, well, let's help these guys get a school in place. At the end of the deployment it was, no, they don't need a school, what they need is some help getting somebody that is trained to teach them, maybe some books, or some clean water, an easier ability to travel from that village to a bazaar for just the basic necessities like food and water. (Interviewee 2, October 1, 2018.)

A Ghazni State Department official shared a similar perspective,

> If something shifted when I was there, and I tried to influence hopefully, was more of a focus on personnel development. I don't think there had been any exchanges of scholarships or training and development opportunities for Afghans. I shouldn't say they didn't happen, but now, several years later, I don't recall that any of those things happened prior to me coming. It's great to build roads, but it's also important to invest in the people and get the bigger and broader exposure. (Interviewee 9, August 28, 2018.)

An emphasis on the human development side was paralleled in Zabul. One PRT commander said,

> The way I approached all of this was like Maslow's hierarchy of needs. What's the first thing you are going to need, it's food and shelter and security. You know, give people that. Then start building off of that. This was a health issue, people were dying. Children were dying. We tried to help with that with a food supplement. (Interviewee 5, August 22, 2018.)

Another PRT commander described just wanting to help the community in Zabul:

> That's also part of the thing about being a PRT. To me that was all kind of sort of a project in a way. It was helping them in any way that we could that didn't take away from their ability to do something. I wasn't trying to make the U.S. look better or anything; I was just trying to be human. That was also a small part of what you may need to look at as a paragraph in your final thing too is, that we really

> became part of the community as best as we could. (Interviewee 7, October 4, 2018.)

While not explicitly the intention, projects that became smaller, more sustainable, and more human capital focused have a connection to resource maximization: less time and resources spent on each project means the PRT has more time to move throughout the province. Yet at the same time, smaller, more sustainable projects mean smaller, more concentrated marginal benefits. The movement towards smaller, more sustainable projects and an emphasis on human capital was positive for the effectiveness of development. But, the implications of this trend on projection may be mixed. While not the focus of this analysis, the relationship between project size and projection may be relevant in future work.

Arguments Not Supported

There are two factors in the bureaucratic and individual decision-making literatures that could have impacted project emplacement that my interview research did not support: one is risk aversion and the other is the level of experience of PRT members. Rooted in Warwick (1975), risk aversion would be a common bureaucratic explanation for behavior in an environment with weak rules and distance from higher headquarters. Meanwhile, inexperience would be a common individual-level explanation for a lack of projection if the challenge of resolving complexity led to some form of paralysis.

I looked for evidence of risk aversion by asking respondents about whether risk appetites varied across agencies. This strategy was based on the expectation that individuals would not report their own risk aversion. From the responses, there was

no indication that risk aversion altered decision-making. Military and civilian leaders managed risk but were far from risk averse. Concerns about risk on the civilian side—where it might be more expected—may have been more prevalent in Kabul than at the PRT level. Hence, this set of respondents did not find risk aversion to be significant for explaining the extent of PRT projection.

Moreover, a lack of projection due to inexperience was not evident in the respondents in this study. The interviewees were as experienced at the time of their service as one could expect of any PRT. All thirteen respondents had past overseas deployments, and all thirteen had Master's degrees. Six of the respondents had previous experience in Iraq, two of whom served on PRTs in Iraq. Four of the respondents had previous Afghanistan experience. Eight of the respondents had substantive Dari or Pashto training (five Pashto and four Dari). It seems infeasible to have had a more experienced group serving in key roles in PRTs in Afghanistan in the 2008 to 2012 time period. I reject the notion that more experience would have increased projection.

Conclusion

This case study illuminates the way PRTs made important decisions to maximize their resources. Maximizing the number of Afghans served, adhering to provincial leader preferences, and unifying agency objectives present efficiency-enhancing but projection-reducing pressure. Conditions that support projection are valuing geographic equity, leveraging local leader support, tolerating financial inefficiency, and separating agency objectives—each of which run somewhat counter to the demands of population-centric doctrine or time and resource efficiency. As a

result, incentives rarely align to allow sustained projection in any remote district or local area. At equilibrium, concentration in the center is more common than concentration in remote areas. To the Afghan public, a lack of sustained projection may look like unwillingness to take risk or make a commitment—something closer to "cheap talk" than a costly signal about the government's intentions. I examine these effects empirically in Chapter 2.

An implication of this study might appear to be that greater logistical capability would have reduced the resource pressure on PRTs, thereby enabling more sustained projection. This suggestion is partly true but has limited worth—in part because there remains a limited political appetite for sustained engagement at the local level in places like Afghanistan and in part because current doctrinal constructs will still under supply projection of governance and development. If doctrine weighs only population-centric focus without geographic focus, if time constraints allow only developing relationships with national or provincial and not district or local leaders, if financial requirements tolerate no inefficiency, or if inter-agency cooperation is not agile, the headwinds to projection will be great.

Policy solutions should not swing too far in one direction. Clear errors from excessive emphasis on physical terrain over population, disregard for anti-corruption practices, or the absence of inter-agency planning can also victimize counterinsurgency and stability operations. Indeed, these errors occurred and had adverse effects during operations in Afghanistan. For instance, a key finding in the 2018 Special Inspector General for Afghanistan Reconstruction (SIGAR) report on stabilization was that rapid flows of development spending "exacerbated conflicts,

enabled corruption, and bolstered support for insurgents" (180), and a key lesson in the SAR was that "different U.S. Departments and Agencies have different priorities, and regional and international actors often have other agendas that work at competing purposes" (9). This study does not reduce the significance of these findings. But, this study does show, for instance, that corruption and the inter-agency process look a bit different on the ground than at the policy level. On the ground, good principles may constrain projection in unexpected ways. With stabilization, there are likely areas where civilian and military leaders have to balance tension rather than hold absolute principles.

Important questions come from this study for counterinsurgency and stabilization planning. At the tactical level, who must counterinsurgency and stabilization reach? This question must be answered in terms of both population and geography. At the strategic level, is consistent projection to those areas possible, and how long must consistent projection be sustained? Applying the factors associated with projection that this study identified, the answers to these tactical and strategic questions require acceptance of geographic equity versus popular benefit tradeoffs, local level versus provincial level tradeoffs, financial inefficiency versus anti-corruption tradeoffs, and inter-agency agility versus unity tradeoffs. Consideration of these tradeoffs are relevant for the policy priorities spurred by the June 2018 SAR.

Chapter 2: The Effects of Project Risk and Commitment

Analyses of the effects of development assistance during counterinsurgency and stabilization efforts in Afghanistan have puzzling short-term findings that motivate taking a longer-term view of the potential for assistance to reduce violence. I introduce risk and commitment as critical dimensions for understanding the longer-term relationship. My theoretical suggestion is that development has the greatest potential to counter insurgents over time if counterinsurgents emplace development projects in areas that favor insurgents—that is, areas with sufficient risk—and maintain their commitment to those areas for an extended period. This theory of risk and commitment comes from thinking about common spatial and temporal attributes of multiple counterinsurgency and stability mechanisms previously identified in the research literature—information-sharing, opportunity cost, and goods competition. I examine risk and commitment's interaction at the micro level in data from a longitudinal study of Ghazni and Zabul Provinces in Afghanistan. I find that violence escalates in less risky highway areas even with high levels of commitment to development assistance. In contrast, violence in moderately higher risk areas off the highway remains subdued, at least initially in response to development. Development assistance projects without risk fail to constrain violence in the longer-term, but the data remain open-ended on the longer-term effects of the projects in riskier areas where fewer projects were implemented.

Introduction

Addressing the effects of development assistance on security in Afghanistan means engaging with several puzzles in existing research. The first is the apparent difference between the effects of development assistance in Afghanistan and Iraq. Berman, Shapiro, and Felter (2011a) provide the central theoretical and empirical foundation for understanding the violence-reducing effects of development projects in Iraq; development assistance fosters information-sharing by the local populace to counterinsurgents. Yet, empirical analyses for Afghanistan have not found similar effects. Among analyses using data at different times during the war in Afghanistan

(Chou 2012, Child 2014, Adams 2015, Sexton 2016, Iyengar et. al. 2017), only Adams finds a significant violence-reducing effect consistent with the Berman, Shapiro, and Felter model. While many sources of variation may explain the difference between studies of Iraq and Afghanistan, it remains an open question whether the fundamental information-based model applies to the Afghan context.

A second puzzle is that improved perceptions of governance associated with development assistance have not correlated with reductions in violence in Afghanistan (Beath, Christia, and Enikopolov 2011, Iyengar et al 2017). Iyengar et. al. find that among five datasets of development projects in Afghanistan, four show positive relationships between development assistance projects and perceptions of governance but none suggest corresponding reductions in violence. The one program in the Iyengar et. al. analysis that might superficially appear to both increase support for governance and reduce violence, the National Solidarity Program (NSP), did not reduce violence when studied as a randomized controlled trial by Beath, Christia, and Enikopolov. Thus, the connectivity between perceptions of governance and security comes into question.

Yet a third puzzle relates to the potential inconsistency between the short- and long-term effects of development on insurgents. Insurgents may choose to exhibit either patience or aggression in the short term that might confound analyses of the way development is affecting them in the longer-term. Yet the impact of data limitations and the reality that short-term analyses offer the cleanest identification of empirical relationships together mean that the effects of multiple years of compounding development attract less scholarly attention and are largely unknown.

Given that development in the current Afghan conflict began as early as 2002 and continues at present, the need for a longer-term perspective seems particularly relevant.

In reviewing the literature, Condra et. al. (2010) is unique in its connection to all three puzzles. The authors find that violent responses to civilian casualties came more quickly in Iraq than in Afghanistan. They argue that while insurgents faced information constraints in Iraq, insurgents face labor constraints in Afghanistan. As a result, the information-sharing mechanism may be less significant and the pathway for development assistance to impact insurgents may be longer. This conclusion offers meaningful insight into the three puzzles—hinting at the need to consider longer time periods—yet there remains the need for a more explicit study of the connection between the conclusions in Condra et. al (2010) and the mechanisms related to development in Afghanistan over multiple years.

I use a longitudinal data case study to examine the mechanisms by which development assistance affects violence in Afghanistan, with the potential longer-term impacts in mind. By studying two adjacent provinces, Ghazni and Zabul, from 2002 through 2011, I can analyze a long run that spans multiple years. Comparatively, the long run in Condra et. al. was two to three months.

In considering the longer term, I introduce the concepts of risk and commitment as critical concepts through which to analyze the relationship between development assistance and violence. My reading of the empirical and theoretical literature is that both the willingness to take risk and sustained, local commitment are necessary for development projects to have stabilizing effects that are evident in the

longer-term. When risk and commitment interact, there are several possible mechanisms that could allow micro-level improvements in security: increasing information-sharing by the local populace, increasing the opportunity cost of participating in the insurgency, or decreasing loyalty to insurgents through competition with insurgent goods.

This theory motivates my effort to quantitatively operationalize risk and commitment and then to empirically discern their independent and interactive effects as attributes of development assistance. A case study framework where spatial precision and the integration of multiple data sources are possible is intended to support refinement of the theory. My empirical results indicate that development with commitment but low risk allows violence to escalate, while development with risk and commitment at least initially, curbs violence. As my analysis in Chapter 1 showed, it was rare for projects to have both risk and commitment. A result of the limited number of projects in relatively riskier districts is that some uncertainty remains about the interactive effects of risk and commitment in the longer term.

Overall, this analysis highlights most clearly the weakness of development assistance undertaken without risk as commitment persists into the longer-term. The headwinds to projection in Chapter 1 thus can be seen as adversely affecting stabilization. This analysis contributes to the empirical literature on the relationship between development assistance and violent insurgent activity by developing a framework in which it is possible to distinguish risk and capture commitment over the longer-term. Existing analyses treat all districts in Afghanistan as the same in terms of risk and ignore the difference between development assistance undertaken over the

short- and longer-terms. While the empirical results from this analysis have limitations, the framework here can help guide future tests of the efficacy of development assistance.

Distinguishing Between Short and Long-term Mechanisms

Existing theoretical and empirical work on the relationship between development assistance and insurgent violence contains multiple conflicting mechanisms that may characterize the relationship. Not only do these mechanisms operate in different directions, but they also have differing time horizons. There are reasons for both promise and uncertainty regarding all of the mechanisms by which development might reduce violence for both the short-term and long-term time horizons. From the existing literature, it is unclear which mechanism is actually at work in Afghanistan—or even if any are present.

Starting with the potential for development to reduce violence in the short term, Berman, Shapiro, and Felter (2011a) suggest an information-sharing mechanism in which development leads the population to provide more information to counterinsurgents. While empirical evidence in Iraq supports this mechanism, analyses such as Sexton (2016) do not find evidence of short-term information returns in Afghanistan. My theory is that information-sharing has constraints in the short term—as Sexton identifies—and that more consequential information-sharing may require risk and commitment on the part of those undertaking development, the tenets of the longer-term model I suggest.

Yet, before moving to the longer term, the other side of the short-term relationship between development assistance and violence remains relevant. Among

the adverse short-term security effects from development are mechanisms in which insurgents seek to discredit counterinsurgents (Crost, Felter, and Johnston 2014), capture resources (Strandow, Findley, and Young 2016), or contest territorial control (Sexton 2016). Berman, Shapiro, and Felter (2011a), Berman et. al. (2011b), and Berman et. al. (2013) also identify negative externalities associated with development in the short term that can increase violence. They suggest that large projects might not be sufficiently attuned to local community needs and conditionality (2011a, 2013) or that improving the local economy can inflate the cost of information (2011b).

However, Crost, Felter, and Johnston (2014) provide an empirical basis for the suggestion that the impacts of development might differ significantly between the short term and even a slightly longer-term horizon from their study in the Philippines. They find that violence during a six-month "social preparation phase" before a project's start date had the most casualties and that violence after that six-month period was "substantially smaller and not statistically significant in any specification" (1846). That is, the time horizon matters at a fairly granular level.

Among the mechanisms other than information-sharing by which development assistance might weaken insurgents over a relatively long time horizon are opportunity cost and goods competition mechanisms. First, the opportunity cost mechanism suggests that economic development will increase the opportunity cost of participating in the insurgency because potential insurgents must relinquish better opportunities outside of the insurgency. The opportunity cost theory has roots in the Becker (1968) theory of crime. While Berman et. al. (2011b) rejects the opportunity cost theory in an insurgent context, Blattman and Annan (2015) lends empirical

support to its potential relevance in the long term. Second, the goods competition mechanism comes from Berman and Laitin (2008). Berman and Laitin suggest that development assistance could reduce the relative advantage insurgents maintain with local public goods provision, subsequently increasing the likelihood that insurgents face a defection problem.

Still, it is also possible to conceive of mechanisms whereby violence increases in the wake of development assistance even after a relatively long-term time horizon. Long-term investments in development can stunt state capacity improvements or adversely raise popular expectations. Fukuyama (2006, 241), del Castillo (2008, 167) and Ghani (2009, 28) all describe the debilitating effects of development assistance on Afghan institutions. Thus, the uncertainty associated with conflicting mechanisms that exists in the short term also extends to the longer horizon.

Theory

Amidst the conflicting mechanisms surrounding development in conflict environments, my theoretical approach seeks to unify some of the existing theory and empirics by suggesting that the effects of development during counterinsurgency will vary along the dimensions of risk and commitment. Risk has a spatial character, while commitment has a temporal one.

Risk refers to the risk tolerance by counterinsurgents in undertaking a development project, and it is equivalent in the Afghan context to the level of insurgent control, where insurgent control can come from advantageous terrain and/or popular support. Insurgent control should be thought of along a spectrum like those of Kalyvas (2006) or Lindsay and Petersen (2011).

Commitment refers to the persistence of efforts aimed at development assistance in a local area. While commitment might be measurable in multiple ways, I consider the period of time over which counterinsurgents make investments in a local area to be most important. I use the number of development projects counterinsurgents implement in a local area as my primary measure of commitment. For additional insight, I consider resource investments in dollars or the time planned for the completion of a development project as alternate ways to show commitment.

My theoretical approach builds off the suggestions of Lindsay and Petersen (2011) that "hearts and minds" counterinsurgency programs tend to focus primarily on neutrals and weak supporters of either side. On the Lindsay and Petersen scale, those neutrals and weak supporters are between -1 and +1 on a scale of insurgent or government support that ranges from -3 to +3 (a scale on which -3 are mobile insurgents and +3 are government security forces). Within this construct, Lindsay and Petersen describe that the most important interactions for counterinsurgents may be with local insurgent or government supporters, those who are at -2 or +2 on their scale. They write,

> [I]f the crucial action is occurring at the +/-2 level, then targeting is crucial. Not only targeting of violence, but targeting of engagement and development is crucial. Indiscriminate aid may be as counterproductive as indiscriminate violence. (35.)

Lindsay and Petersen are suggesting that projects in areas of greater risk have the potential to have greater effects. My theory starts from this perspective on the importance of risk and adds commitment as an additional important dimension.

The interactive effect of risk and commitment could come from the opportunity cost mechanism, the goods competition mechanism, or the information-

sharing mechanism. The probability that these mechanisms become active and aid in reducing violence increases when risk and commitment increase together—at least up to a point. Projects with high risk but low commitment are unlikely to have an effect, and on the flip side, projects with low risk but high commitment are also unlikely to have an effect.

Increasing risk means that development assistance will be closer to the areas where insurgents reside and plan, seek future recruits, and offer goods that enhance their control. In terms commonly used by tactical intelligence officers, those types of areas are insurgent support zones. While areas that are deep in insurgent support zones are unlikely to be conducive to development assistance or yield stability returns from development investments because the terrain and popular advantages so greatly favor insurgents, development assistance with moderate levels of risk might have such effects. Areas of moderate risk on the edge of insurgent support zones are likely to be near insurgent staging areas, where insurgents meet and pick up equipment before attacks. Staging areas are near the intersection of the higher risk support zones that clearly favor insurgents and the lower risk disruption zones, or engagement areas, where insurgents conduct their attacks.

Theoretically, somewhat increasing the risk associated with development assistance—that is, emplacing development assistance near staging areas rather than near engagement areas—increases the probability that any of the proposed mechanisms can weaken insurgents. With moderate risk, development assistance should permit better information-sharing because those who benefit from the development are more likely to have the placement and access to insurgents to gather

quality information.[6] Similarly, relatively more risky development assistance should increase the chance of inflicting opportunity cost considerations on potential recruits because those recruits are more likely to come from areas of greater insurgent control. Finally, moderately risky development assistance may enable counterinsurgent goods and services to enter the markets where insurgent goods and services typically hold a competitive advantage. At the same time, risk alone is insufficient because commitment over time to those riskier areas is necessary to corroborate information, to manifest sufficient economic growth for opportunity costs to be sizable, and to sustain competition with insurgents.

Yet, commitment without risk is much more common among development assistance efforts during the course of recent counterinsurgency in Afghanistan. In Chapter 1, I set out the multiple factors that present significant headwinds to sustained development projection away from the center—that is, into areas of risk. Unfortunately for counterinsurgents, development assistance without risk should be expected to have weak effects. Because insurgents rarely reside in areas of lower risk, development with commitment but with little or no risk is missing the spatial dimension necessary to influence insurgents or future insurgents. Development assistance projects in less risky areas are unlikely to transfer strong effects into neighboring areas of greater risk. That is, carrying out development assistance in less risky areas, even if done well on a project-by-project basis, is not likely to do much to weaken the insurgents who reside in more risky areas.

[6] By "placement and access," I am referring to characteristics that influence the quality of a Human Intelligence source as described in the Army Human Intelligence manual (FM 2-22.3, 2006).

Thus, whether development assistance has sufficient time (commitment) and proximity to areas of insurgent control (risk) seems likely to be pertinent for its effects on insurgent violence. When analyses do not distinguish between varying levels of risk, the majority of projects that are carried out in areas with relatively less risk can dominate the effects that appear in empirical estimates. The common finding that violence increases after development assistance projects in Afghanistan is not surprising when risk is omitted from empirical models and most projects are in the less effective low-risk areas because of the headwinds to projection. At the same time, when analyses do not capture the degree of local commitment, they do not permit the consideration of evidence either in favor of or against counterinsurgency and stabilization mechanisms that require time to take root. The empirical strategy in this study is thus aimed at allowing the regression model to discern the extent to which the effects of development assistance change when risk and commitment interact.

Data

This analysis starts from a NATO dataset providing information on development projects in Afghanistan from 2001 through 2012. (Data courtesy of Shaver and Wright.) The dataset includes projects from the Afghan Ministry of Reconstruction, Rehabilitation, and Development (MRRD), the Afghan Ministry of Finance, and the Combined Information Data Network Exchange (CIDNE) NATO database. The dataset includes projects funded by international donors, international development banks, and multiple U.S. agencies including the U.S. Agency for International Development (USAID) and the Department of Defense (DoD).

Counterinsurgents and their supporters identify the projects and monitor project completion, but the work is most often done by local contractors. This broad collection of projects over a considerable time period is useful for the longer-term analysis here because it allows analysis of the cumulative effect of the conglomeration of development assistance that converged into the villages and districts of Afghanistan.

The analysis focuses on individual projects as the unit of analysis in assessing the relationship between development assistance and changes in violence. A challenge is that this dataset in principle includes a wealth of useful information including geographic precision for the location of each project, the cost of each project, and the time period over which each project was active and then completed. In practice, however, complete information is not available for all of the projects in the dataset. To address some of the missing data, I am able to add locational information to many projects. I use the "finder tool" within the Afghanistan Spatial Data Center (ASDC), a project with contributions from USAID, the Afghan Ministries, and the University of Maryland, to identify the geocoordinates for projects when the settlement or village but not the coordinates are in the dataset. The "finder tool" handles phonetic spelling and returns a matching score for each village. Using this tool, I could verify existing project coordinates and add additional project coordinates for all of the projects that include the settlement locations to which they pertain.

Guided by my theoretical premise about the role of micro-level risk for the effects of development projects on security, I chose a case study of provinces in

which the geography aided in quantifying risk. Based on my field experience in Wardak Province, Afghanistan, I operationalize risk as the difference between being on or off Highway 1 (Ring Road)—a development project away from the highway is one with greater risk than one on the highway. Highway 1 is a major terrain feature that orients both civilian and insurgent behavior linearly. Areas along the highway are frequently patrolled by counterinsurgents and are natural engagement areas where insurgents target counterinsurgents. Control along the highway is contested. Areas further from the highway are naturally areas of greater insurgent control due to advantageous terrain, such as mountains or valleys, and rural Pashtun popular support. Insurgents tend to develop support zones in these types of areas. To use an analogy, imagine if the police patrolled I-95 along the east coast of the United States but rarely ventured into non-highway areas. Areas off the highway would quickly become a different place. Given the terrain in Afghanistan, the environment can be vastly different only a few kilometers from the highway.

To focus on implications relevant for U.S. policy-makers, I study provinces with the most U.S. primacy over reconstruction and development, which translates to U.S. leadership of Provincial Reconstruction Teams (PRTs). There were PRTs in 26 of 34 Afghan provinces, and 14 of the PRTs had leadership from other countries. Among the 12 provinces with PRTs led by the United States, Ghazni and Zabul are the only provinces along Highway 1. Thus, motivated by the goal of operationalizing risk and U.S. leadership in reconstruction and development, I study Ghazni and Zabul Provinces. Although Ghazni also had a Polish-led PRT, the U.S. PRT continued to act independently, applying U.S. doctrine for counterinsurgency, stability, and

development.

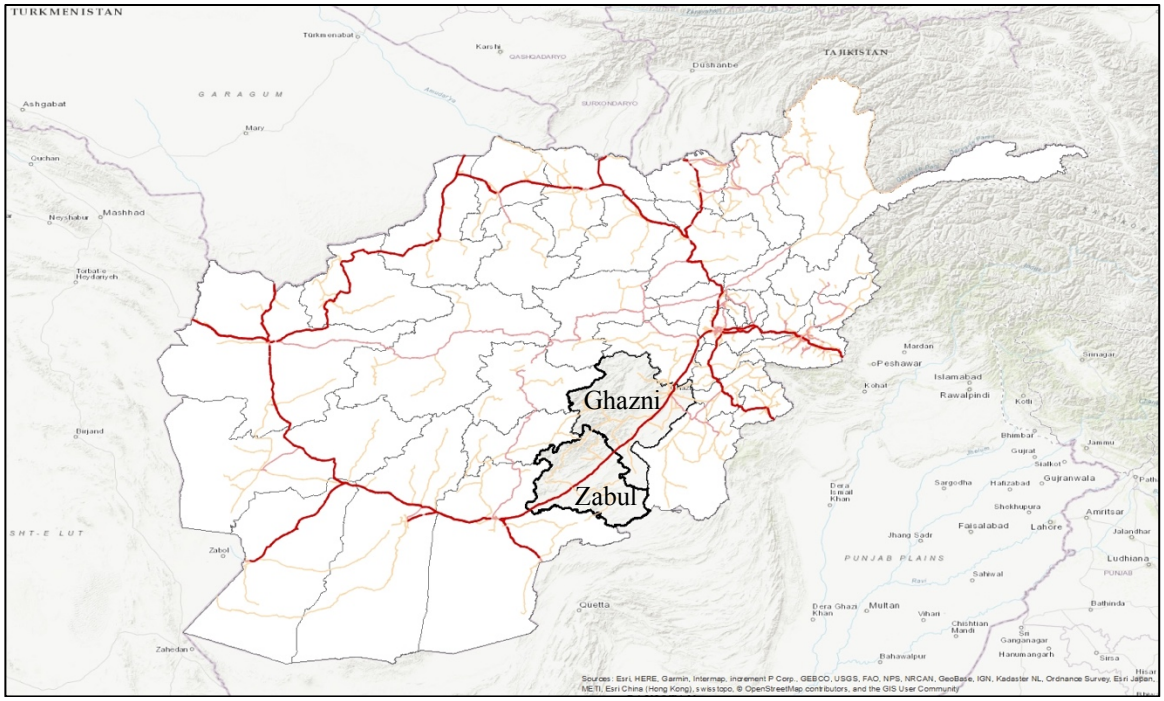

Figure 1a. Ghazni and Zabul Provinces within Afghanistan

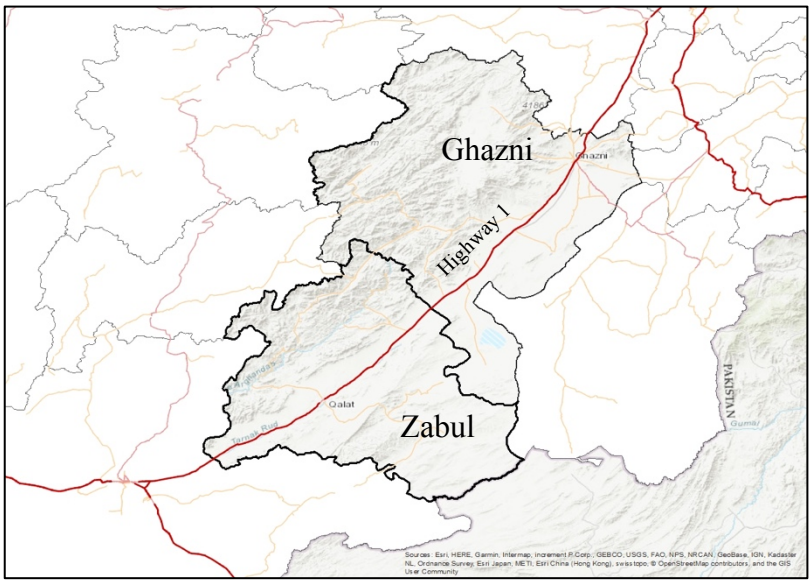

Figure 1b. Ghazni and Zabul Provinces

Table 1. Ghazni and Zabul Provincial Level Comparison

	(1) Ghazni	(2) Zabul
Population Density in 2000 (persons/km^2)	85.89	14.92
Area (km^2)	27,431	20,498
Mean Elevation (meters)	2,688	1,944
Max Elevation (meters)	3,962	3,124
Open Terrain (fraction of total area)	0.9473	0.9642
Forest (fraction of total area)	0.0173	0.0053
Road Density (km/km^2)	0.0930	0.0722
Temperature in 2014 (celsius)	10.94	15.74
Rainfall in 2014 (millimeters)	20.66	21.25
Ethnic Groups	Afghans; Hazara-Berberi; Uzbeks	Afghans; Hazara-Berberi
Languages Spoken	Hazaragi; Pashto-Southern	Hazaragi; Pashto-Central; Pashto-Southern

Notes: All of these variables come from the xSub database, which pulls from multiple sources. (Zhukov, Yuri M., Christian Davenport, and Nadiya Kostyuk. 2017. xSub: Cross-National Data on Subnational Violence. Produced and distributed by Ann Arbor, MI: Center for Political Studies, University of Michigan. http://cross-sub.org/data.)

"Population in 2000" is from Gridded Population of the World (GPW) v3, National Aeronautical Science Administration (NASA), http://sedac.ciesin.columbia.edu/data/collection/gpw-v3.

"Mean Elevation" and "Max Elevation" are from ETOPO5 5-minute gridded elevation data, National Centers for Environmental Information (NCEI), https://www.ngdc.noaa.gov/mgg/global/etopo5.HTML.

"Open Terrain" and "Forest" are from Global Land Cover Characterization (GLCC), U.S. Geological Survey, https://lta.cr.usgs.gov/GLCC. "Open Terrain" measures the proportion of land covered by open terrain (shrublands, savannah, grasslands, barren or sparsely vegetated). "Forest" measures the proportion of land covered by evergreen, deciduous or mixed forest.

"Road Density" is from Digital Chart of the World (DCW), http://statisk.umb.no/ikf/gis/dcw/ (link is dead).

"Temperature in 2014" and "Rain in 2014" are from National Oceanic and Atmospheric Administration (NOAA), https://data.noaa.gov/dataset/terrestrial-air-temperature-and-precipitation-1900-2014-gridded-monthly-time-series (link is dead).

"Ethnic Groups" are from Geo-referencing of Ethnic Groups (GREG), https://icr.ethz.ch/data/greg/. Weidmann, Nils B., Jan Ketil Rød, and Lars-Erik Cederman. 2010. "Representing Ethnic Groups in Space: A New Dataset." *Journal of Peace Research* 47(4): 491–99. GREG includes the names of local ethnic groups.

"Languages Spoken" is from World Language Mapping System, http://www.worldgeodatasets.com/language/.

While Ghazni and Zabul are not identical, they are adjacent rural provinces along Highway 1 with primarily Pashtun populations. The highway creates a similar economic structure in which bazaars along the highway are major economic centers. The predominantly rural environment aids in identifying mechanisms because the human terrain is simpler than in urban areas. (Figures 1a and 1b depict the provinces geographically while Table 1 compares the human and physical environments.)

Most differences related to the border that Zabul shares with Pakistan or the physical environment can be controlled for in a regression framework by including appropriate covariates. However, one key difference between the provinces are four Hazara-dominated districts in western Ghazni that are more stable than neighboring Pashtu-dominated districts: Ajristan, Malistan, Jaghuri, and Nawur districts (Izady).[7] (Figures 1c and 1d highlight the predominantly Hazara districts on the map.)

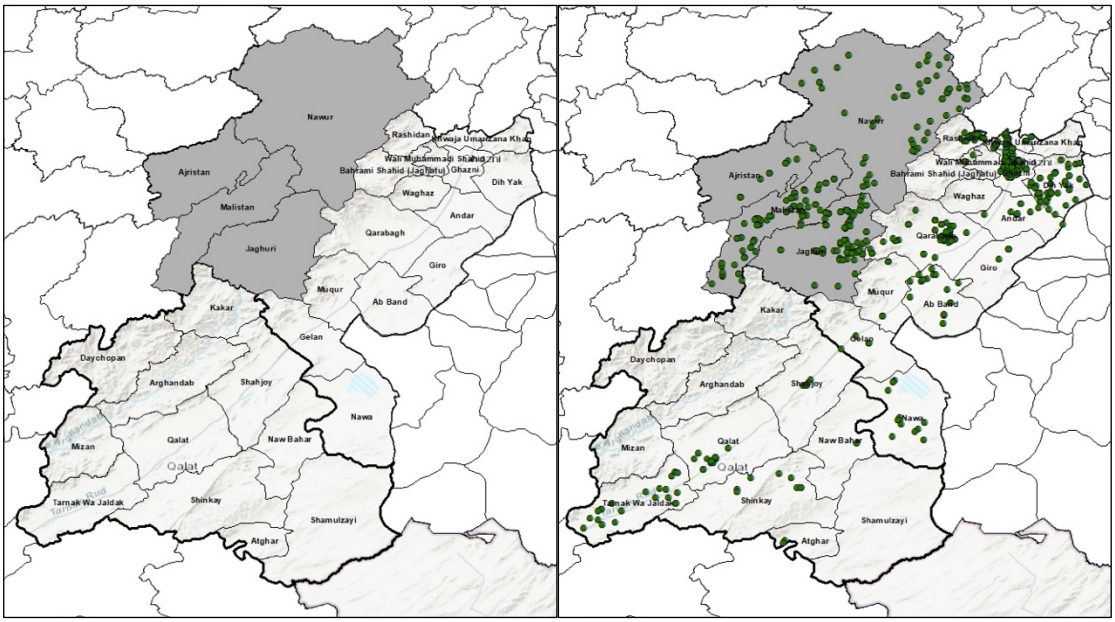

Figure 1c. Districts in Ghazni and Zabul with Hazara Districts Highlighted

Figure 1d. Projects with Hazara Districts Highlighted

[7] The Hazara are a minority group comprising seven to 20 percent of the population in Afghanistan. They are of Mongolian descent, speak a dialect of Dari (Hazargi), and are almost entirely Shia Muslim, which contrasts with the Persian descent, Pashto language, and Sunni Muslim practices of the Pashtun population.

Removing the Hazara districts makes the operationalization of risk more appropriate. Qualitative interviews supported the validity of the decision to drop the Hazara districts. Interviews with four different Ghazni PRT members mentioned that the Hazara districts were different. One PRT commander in Ghazni described,

> Just because of Ghazni's geography and the Hazara are basically the western third of the province, it was a totally different approach. Basically, when guys would fly out, once you're there, they could take off their body armor, and that was a very secure area. That was the only location.
> Then, there were some, there were three or four districts, there was nothing going on. They were totally Taliban controlled. No one went there. Kind of a spectrum. Three or four where nothing happened… all of the Hazara areas, you knew that whatever you contracted for was going to get built within tolerances… and then the messy middle, I would say. (August 10, 2018 Interview.)

A State Department official in Ghazni offered a similar characterization:

> Ghazni was a really interesting place because it was almost like all of Afghanistan in a microcosm. So you had this flat area to the east and south that Highway 1 went through, and that was largely Pashtu. And then you had a mountainous region that was partly Hazara and partly Pashtu. And the mountainous Pashtu regions, number one, were very far away and, number two, were very insecure. So some of those we just didn't go to. (August 16, 2018 Interview.)

Thus, after removing the Hazara Districts from the dataset and controlling for differences in the physical environment, risk is reasonably operationalizable by distinguishing between districts on and off the highway, and the environments in Ghazni and Zabul can be treated similarly.

Table 2. Projects in Initial Dataset

	(1) Ghazni	(2) Zabul	(3) Total
All Projects			
Active/Obligated	489	163	652
Committed	30	32	62
Completed	1,970	536	2,506
Nominated	26	65	91
Planned/Unfunded	20	13	33
Suspended	1	4	5
Terminated (Cancelled)	236	230	466
Unknown	591	262	853
Total	3,363	1,305	4,668
Projects with Latitude and Longitde			
Total	1,748	761	2,509
Projects with Start Date			
2002	9	2	11
2003	63	21	84
2004	336	56	392
2005	339	29	368
2006	246	40	286
2007	370	63	433
2008	270	25	295
2009	279	29	308
2010	99	21	120
2011	3	4	7
Total	2,013	290	2,303
Projects in Hazara Districts			
Total	804	0	804

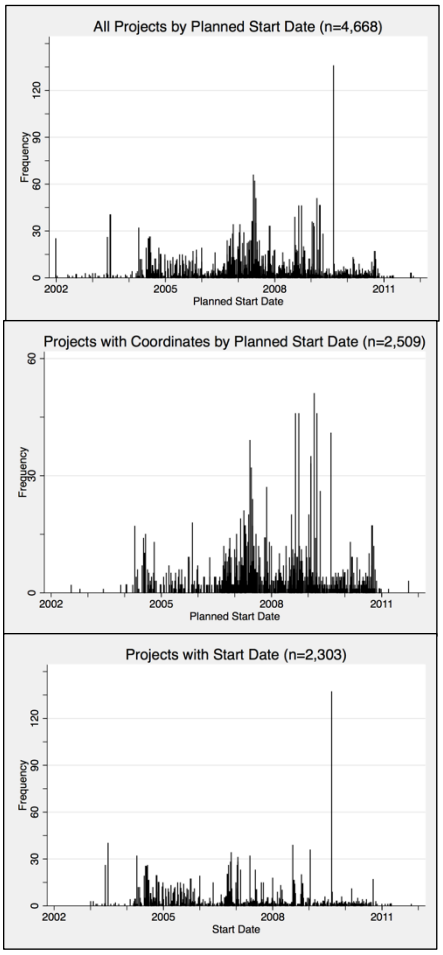

Figure 2. Graphs of Projects over Time

Table 3. Projects in Final Analysis

	(1) Ghazni	(2) Zabul	(3) Total
Active/Obligated	75	3	78
Completed	330	63	393
Total	405	66	471

Note: Projects in the final analysis are those with latitude and longitude coordinates, a start date, and a status of active or completed that are not located in the predominantly Hazara districts in Ghazni.

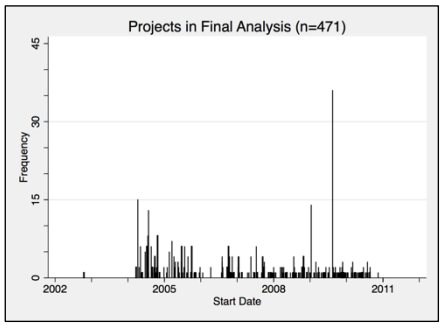

Figure 3a. Graph of Projects in Final Analysis

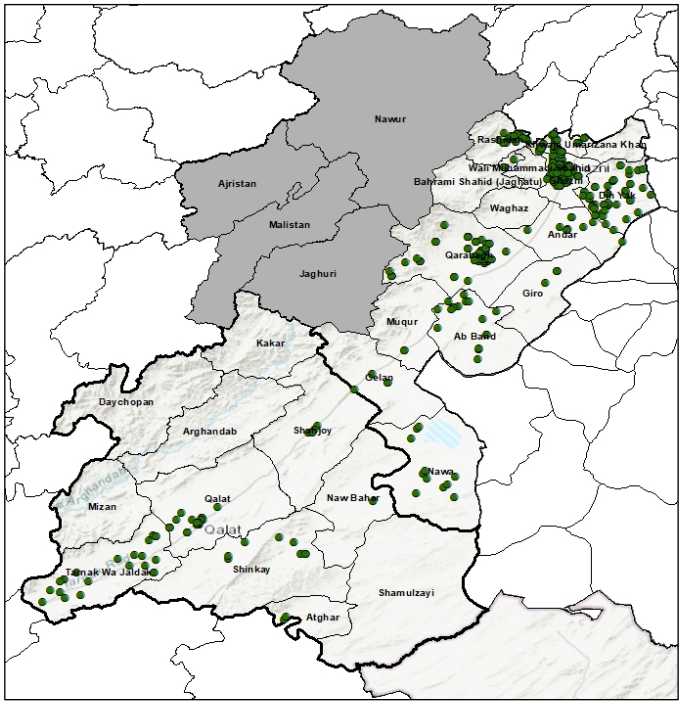

Figure 3b. Map of Projects in Final Analysis

Table 4. t Test Comparing the Sample of Projects in the Final Analysis to the Unusable Projects

Variable	(1) Sample Mean	(2) Unusable Project Mean	(3) p-value for Two-Tailed Difference in Means Test
Amount Spent (USD)	35,626	170,335	0.0007
Planned Start Year	2006.78	2006.94	0.1028
Province (Ghazni = 1)	0.86	0.70	0.0000
District Population Density (persons/km^2)	1193.77	710.13	0.0000
District Mean Elevation (meters)	2,146	2,299	0.0000
District Open Terrain (fraction of total area)	0.91	0.94	0.0000
District Number of Ethnic Groups	1.27	1.41	0.0000
District Number of Languages Spoken	1.01	1.15	0.0000
District to Provincial Capital Distance (km)	30.16	50.12	0.0000
District Road Density (km/km^2)	0.20	0.15	0.0000
District Temperature (celsius)	-7.01	-8.08	0.0000
District Rainfall (millimeters)	3.27	3.12	0.0000

The dataset with all of the projects in Ghazni and Zabul starts with 4,668 projects that span from 2002 through 2011 (Table 2 and Figure 2). Examples of common projects include digging wells, building schools, cleaning karezes (underground irrigation tunnels), and creating roads. However, only a sample of projects with sufficient spatial and temporal precision, a status of "completed" or "active", and a location in districts other than the Hazara districts are appropriate to

use for this analysis. The other projects were missing information in one or more dimensions of their location, start date, or status, or they were in the predominantly Hazara districts and thus excluded from the empirical analysis. The resulting sample of projects with sufficient information and a location in a predominantly Pashtun district has a sample size of 471, with 405 in Ghazni and 66 in Zabul. Table 3 and Figure 3 depict the projects in the sample in tabular, spatial, and temporal form.

Table 4 shows that there are differences between the sample projects and the unusable projects. The sample favors projects in Ghazni that are closer to the provincial capital and in areas of greater population density than the unusable projects. The primary reason for this difference appears to be that only 22 percent of the projects in the dataset in Zabul have a start date listed compared to this information being present for 60 percent of the projects in Ghazni. It is hard to discern if this difference biases the results in a particular direction. In the analysis that follows, I include provincial fixed effects to reduce concerns about omitted differences between Ghazni and Zabul.

Table 5. SIGACTS in Ghazni and Zabul 2002 Through 2011

	(1) Ghazni	(2) Zabul	(3) Total
Direct Fire	2,108	2,059	4,167
Indirect Fire	1,303	651	1,954
IED Explosion	801	1,031	1,832
IED Found and Cleared	831	1,337	2,168
Total	5,043	5,078	10,121

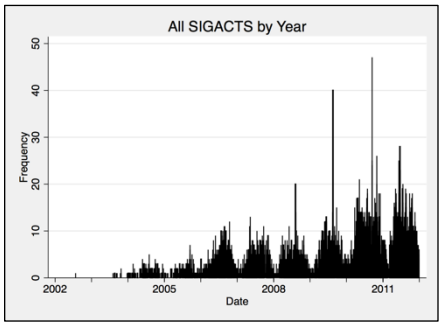

Figure 4a. Graph of SIGACTS by Year from 2002 - 2011

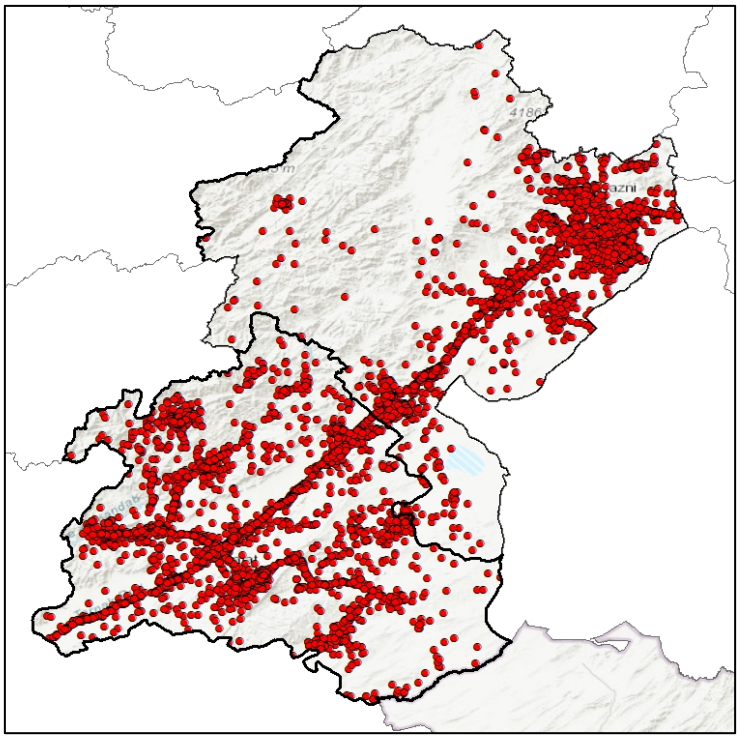

Figure 4b. Map of SIGACTS in Ghazni and Zabul Provinces from 2002 – 2011

The primary dependent variable for the analysis comes from Significant Activities (SIGACTS) recorded by the DoD from 2001 through 2012. (Data courtesy of Shaver and Wright). SIGACTS are violent events reported by service members on the ground—when insurgents attack coalition forces or coalition forces interdict an attack such as by finding an Improvised Explosive Device (IED), that constitutes a SIGACT. Table 5 and Figure 4 depict SIGACTS in tabular, spatial, and temporal form after limiting the dataset to the 2002 to 2011 time period. The spatial and temporal precision of DoD SIGACTS make them the preferred data source on security conditions for this analysis, with the number of SIGACTS taken as corresponding to the level of violence in a location.

Still, SIGACT data remain imperfect in two ways. First, the number of SIGACTS reported varies with troop numbers and the number of patrols. More

patrols will make SIGACTS more likely. I include controls for a project's start year to reduce potential bias from year-to-year changes in troop numbers (since the extent to which counterinsurgents patrolled varied in response to broad strategic decisions that varied over time), but there is no perfect control for the number of patrols. One could envision a violence indicator such as SIGACTS per patrol, or even SIGACTS per mile of distance patrolled, but that information not available. Second, violence data in general is an imperfect proxy for insurgent strength. As Kalyvas (2006) identifies, insurgents have little need for violence in areas of their exclusive control. In addition, insurgents also have options to transfer to other areas, remain patient, or employ non-violent means. The longer-term perspective that exists with the use of a commitment variable that accounts for a project's timing within a longer-term sequence helps distinguish longer-term trends from short-term reactions, but some of these dynamics may remain persistent.

I use two additional data sources other than the project and SIGACT data to gain further insight into the role of risk and commitment. First, I conducted personal interviews with members of the State Department, DoD, and USAID who served on PRTs from 2008 through 2012. Those interviews both informed the empirical design and offered first-hand perceptions of the mechanisms at work surrounding development projects. Second, Afghanistan National Quarterly Assessment Report (ANQAR) survey data provide an Afghan local perspective on security conditions, government performance, and development satisfaction. (NATO Joint Force Command Brunssum shared the ANQAR survey data.) Waves 1-10 of the survey from September 2008 through December 2010 coincide with the time period of this

study.[8] NATO advised against using the ANQAR results from 2011 and 2012 due to a discontinuity in survey methods during that time period.

Using the three different data sources together offers as much variety and precision at the tactical level as is feasible to gather in an unclassified retrospective case study. While measurement in a combat environment is imperfect, areas where these three very different data sources point to similar conclusions allows for some confidence regarding the conclusions even within a relatively small n case study. A perspective not present is that of insurgents. Such data at the tactical level is rarely unclassified and might only be possible only through site exploitation documents or sources such as detainee records. Such analysis would be useful in the future.

Method

This analysis is unique for the spatial and temporal precision used to estimate the effects of development projects on security and for the way I operationalize and employ risk and commitment as key variables of interest. Spatial precision comes from using the latitude and longitude of development project settlements and measuring the relationship between development assistance and violence within five kilometers of those projects. Temporal precision comes from analyzing the effects of projects within six 30-day periods of a project's start date. The spatial and temporal precision I employ is most similar to Karell and Shutte (2018) compared to earlier

[8] The project sample for the ANQAR portion of the analysis has slightly different requirements than the SIGACT portion. Projects with a start date, an "active" or "complete" status, and a location in a non-Hazara district are still required, but projects do not need to have geocoordinates. Projects only need to have information on their districts. However, an assumption must be made that the projects within a survey wave are those that impact survey responses. Thus, I include only projects within 90 days of the first survey wave up to the last date of the last survey wave. The resulting sample size is 543 (486 projects in Ghazni and 57 in Zabul).

estimates effects of development spending at the district level with bands in weeks, months, or half years (Berman, Shapiro, and Felter 2011a, Chou 2012, Child 2014, Adams 2015, Sexton 2016). For robustness, I also test several spatial and temporal adjustments to the basic regression specifications. First, I adjust the time period bands, shortening them to 15 days or increasing them to 45 days. Then, I vary the spatial distance around a project in which SIGACTS are measured, ranging from 1km to 9km.

Table 6a. Project Number Within District in Highway and Non-Highway Districts

	(1)	(2)	(3)	(4)
	Before Matching		After Matching	
Project Number Within District	HWY	nonHWY	HWY	nonHWY
1-10	124	98	18	98
11-20	48	15	4	15
21-30	63	4	7	4
31-40	55	0	7	0
41-50	13	0	3	0
51-60	17	0	4	0
61-70	12	0	3	0
71-80	11	0	3	0
81-89	11	0	5	0
Total	354	117	54	117

I operationalize risk with a binary variable indicating whether projects are in highway or non-highway districts, with Highway 1 being the main highway running north and south through Ghazni and Zabul. I operationalize commitment as the number of projects within a district. An area where there are a larger number of projects is one in which there is a greater demonstration of commitment by counterinsurgent forces. Thus, each project has a project number based on its sequence within a district that reflects the number of projects that were previously started in the district since 2002. Table 6a shows the project numbers used in the primary definition of commitment for projects in highway and non-highway districts.

The definitions of risk and commitment are both imperfect. For risk, factors

other than insurgent control may impact decisions to emplace projects on or off the highway. Risk is also more continuous than the highway and non-highway district cutoff implies. I try to address these concerns with a large number of environmental controls throughout the analysis and with an alternate definition for risk that distinguishes risk as the difference between the provincial capital and other districts. Most importantly, I am suggesting that areas off the highway—or away from the capital—are more likely to have higher risk than areas on the highway, and not that areas off the highway are always higher risk. On average, I expect the probabilistic difference to be large enough for there to be a significant effect. That there is a significant difference in terms of the degree of insurgent control between areas on and off the highway comes from my experience on the ground in Afghanistan.

For commitment, using the project number in sequence impedes upon the independence of error terms and biases the results toward areas with high commitment, which are primarily on the highway and in Ghazni. The challenge here is related to both methods and data. A challenge specific to longer-term analysis on which I focus is that the number of projects in risky areas were limited despite the long duration of investments in Afghanistan. Prior analyses do not treat the limited number of projects away from the center as a significant factor to be analyzed. Taking this central geographic feature of Afghanistan into account is an advance of the work here over the existing research literature. My theoretical argument and personal experience both suggest that the two environments might be different, and the empirical goal is to discern if this is the case. However, if I were to only estimate the effects in riskier areas without any commitment variable, the results based on risk

alone would easily be dismissed as demonstrating only fleeting gains in reducing violence—hardly an outcome on which to base policy.

I use the number of projects as the primary definition of commitment because I think it is the way local Afghans are most likely to judge commitment. I later include the amount spent on a project and the planned project duration as alternate definitions of commitment to address this definition's weakness in terms of error independence and project number balance. I discuss the estimates obtained using the alternate definitions of the critical variables after reporting the main results.

After defining the critical variables, I use nearest neighbor matching to match non-highway projects with highway projects of similar size and at a similar time. I match on the amount allocated to a project, the month in which a project starts, and the year in which a project starts. Matching on the amount allocated to a project is important because projects of different size should have different effects as shown in Berman, Shapiro and Felter (2011a), Berman et. al. (2013), Adams (2015), and Sexton (2016). Matching on the project start month is necessary to account for seasonal variation in levels of violence, which exist due to the presence of "fighting seasons" in Afghanistan. Cold temperatures and snow in the winter, a wet season in the spring, and harvest times create strong seasonal effects in the intensity of fighting. Matching on project start year is necessary to account for changes in insurgent strength across the country as the conflict progressed. Matching along these three

variables improves the accuracy of estimated effects.[9] Tables 6b and 6c show improvements in covariate balance and reductions in differences in project type as a result of matching. For robustness, I use nearest neighbor matching with the average level of pre-project violence in place of the start year and start month, nearest neighbor matching with a full set of environmental covariates, and employ an alternate matching process, coarsened exact matching.

Table 6b. Covariate Balance Before and After Matching

	(1) HWY District Projects Before Matching	(2) HWY District Projects After Matching	(3) Non-HWY District Projects	(4) Standardized Difference Before Matching	(5) Standardized Difference After Matching
Start Year	2007.21	2005.71	2006.09	-0.53	0.16
Start Month	6.69	6.66	6.92	0.08	0.10
ln Amount Spent (USD)	9.64	9.35	9.61	-0.02	0.20
Population Density (persons/km^2)	1538.67	728.82	76.49	-1.27	-0.69
ln Distance from Pakistan (km)	5.20	5.14	5.10	-0.28	-0.12
District Open Terrain (fraction of total area)	0.90	0.92	0.93	0.44	0.05
District Number of Ethnic Groups	1.38	1.60	1.03	-0.95	-1.53
District Number of Languages Spoken	1.00	1.00	1.02	0.21	0.21
District Road Density (km/km^2)	0.21	0.14	0.14	-0.68	-0.01
District Temperature (celsius)	-7.21	-6.91	-6.49	0.28	0.13
District Rainfall (millimeters)	3.32	3.36	3.20	-0.30	-0.34
District to Provincial Capital Distance (km)	29.80	44.75	37.08	0.29	-0.33
District Mean Elevation (meters)	2136.38	2114.29	2196.68	0.31	0.35

Table 6c. Project Type Balance Before and After Matching

	(1) HWY District Projects Before Matching (Percent)	(2) HWY District Projects After Matching (Percent)	(3) Non-HWY District Projects (Percent)	(4) Percentage Point Difference Before Matching	(5) Percentage Point Difference After Matching
Agriculture	7.3	7.4	3.4	-3.9	-4.0
Commerce and Industry	4.2	3.7	2.6	-1.7	-1.1
Education and Community Devlopment	19.2	11.1	14.5	-4.7	3.4
Governance and Capacity Building	1.1	1.9	0.9	-0.3	-1.0
Infrastructure	48.0	42.6	47.0	-1.0	4.4
Other	0.6	0.0	0.0	-0.6	0.0
Public Health	16.7	31.5	29.9	13.2	-1.6
Security, Condolence, Emergency	2.8	1.9	1.7	-1.1	-0.1

After matching, I first estimate the separate effects of risk and commitment on violence (SIGACTS) from the time a project starts. The basic form of the equations I

[9] I use the "teffects" command in Stata and follow the recommendations of the Social Science Computing Cooperative (SSCC) at the University of Wisconsin for "Regression on the 'Matched Sample.'" The "teffects" command in Stata is not perfectly designed for panel data and difference-in-difference estimation, requiring a minor manual adjustment to select the nearest neighbor match that also corresponds to the correct time period.

estimate follows a difference-in-difference specification. The comparison between started projects, the use of a difference-in-difference estimation with matching and narrow spatial and temporal windows for distinguishing the effects of development projects on SIGACTS as the dependent variable parallels the technique used in Karell and Shutte (2018), making this estimation strategy consistent with the most current methods in this sub-field.[10] Karell and Shutte use this method to estimate the effects of different types of projects in similar environments, while I estimate the effects of similar projects in different types of environments.

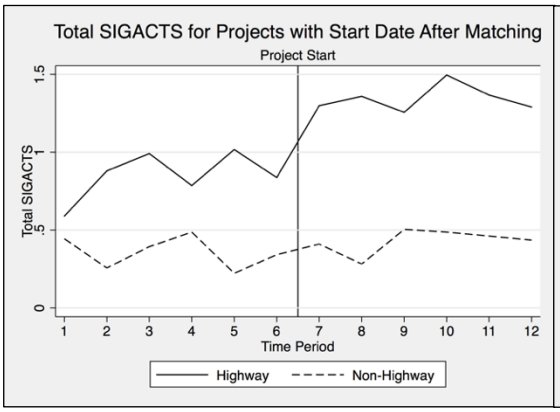

Figure 5a. SIGACTs Before and After Project Start

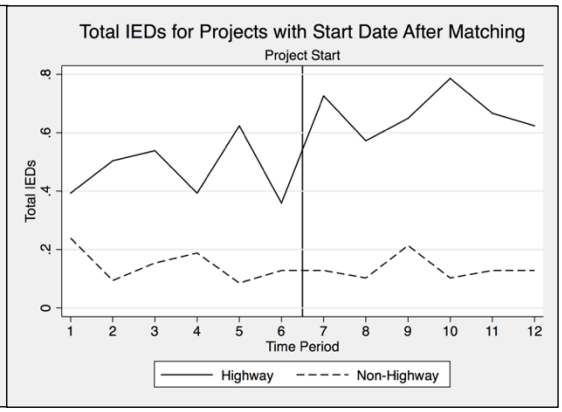

Figure 5b. IEDs Before and After Project Start

This estimation strategy is based on the idea that there are parallel trends in terms of violence before project start and random assignment of projects on and off of the highway. Figure 5a and Figure 5b depict the quality of the parallel trends before and after a project's start date for projects in highway and non-highway districts once

[10] A difference in my analysis versus Karell and Shutte is that it I do not include matching on average pre-project violence in my primary results, while Karell and Shutte emphasize matching on pre-project violence in both of their primary results figures. I find that matching on start year and start month rather than average pre-project violence allows better parallel trends. This occurs because areas with low violence on the highway are those with inconsistent trends. My preferred matching combination is in the main results in Tables 7-9, but I include the results with matching on pre-project average violence among the robustness checks in Table 10.

matching is complete. The trends in terms of average SIGACTS and IED events (a sub-set of the SIGACTS) are flat in the 150 days (time period 2 to time period 6) before both highway and non-highway projects (areas where there is variation are small based on the y-axis scale). Meanwhile, qualitative interviews in Chapter 1 showed that the PRTs, who were the principal units responsible for projects in Ghazni and Zabul, made project emplacement decisions similarly for projects in highway and non-highway districts as they tried to overcome resource constraints and headwinds to projection. As PRTs implemented projects in this way, commitment to any one district was nearly random. Particularly emblematic of the way decisions about projects were made was this statement by a State Department official in Ghazni:

> On a given day, we would have these mission planning exercises where it was like, alright, no one has been to Deh Yak in three weeks, we're going, what do we want to accomplish there. Then, everyone was throwing up their hands. The Polish water guy wanted to go out there because his predecessor left a note about a program that they could have done. AID said they wanted to go out because they never did anything to go outside the wire and that was the closest they could get. I had my goals and agendas for who to meet with. (August 28, 2018 Interview.)

This process led to a broadly similar mix of projects in highway and non-highway districts. Differences that did exist in terms of project type were reduced by matching, as shown in Table 6c. Matching also reduced environmental differences as shown in Table 6b. I seek to reduce other concerns about differences in the environment by reporting multiple results for robustness, including without covariates, with a partial set of covariates, and with a complete set of covariates.

The coefficient of interest, $ß_1$, in the risk equation, equation (1), estimates the effect of a project started in a non-highway district compared to a project started in a

highway district. The coefficient of interest, $ß_1$, in the commitment equation, equation (2), estimates the effect of a project's sequence among the projects in a district. In all cases throughout this analysis, the effects estimated are differences between projects that started, as indicated by a project status of "active" or "completed" in the dataset. Areas without projects or where projects were never started are not a part of the analysis. Thus, I am estimating the Average Treatment Effect on the Treated (ATT) between villages in which projects were started in highway and non-highway districts. This differs from an Average Treatment Effect in which the estimate would be the difference between projects started and not started in highway and non-highway districts respectively.

After estimating the effects of risk and commitment on violence independently, I then estimate the effects when risk and commitment interact. The coefficient of interest, $ß_1$, in the interaction equation, equation (3), indicates the effect on SIGACTS as the number of projects in a non-highway district increases. Based on my theory, I expect that only the coefficient of interest in the interaction equation will predict a decrease in the number of SIGACTS—that is, that taking both risk and showing commitment result in a reduction of violence.

$$SIGACTS = ß_0 + ß_1 nonHWY*start + ß_2 nonHWY + ß_3 start + ßX + \varepsilon \quad \textbf{(1)}$$

$$SIGACTS = ß_0 + ß_1 projectNumber*start + ß_2 projectNumber + ß_3 start + ßX + \varepsilon \quad \textbf{(2)}$$

$$SIGACTS = ß_0 + ß_1 projectNumber*nonHWY*start + ß_2\ nonHWY*start + ß_3\ projectNumber*start + ß_3\ projectNumber*nonHWY + ß_5 projectNumber + ß_6 nonHWY + ß_6 start + ßX + \varepsilon \quad \textbf{(3)}$$

The SIGACTS measures used as the dependent variable include only those events in immediate proximity to the project, not acts of violence in the entire district.

I also include the results for four different types of SIGACTS: IEDs found and cleared, IED explosions, direct fire events, and indirect fire events. The matrix X in all equations includes controls for various aspects of the environment that could also account for variation in the level of violence. These include the project's start year, the average of the number of SIGACTS in the six 30-day periods before project start, a province dummy, the amount spent on the project, the population density of the district, the distance to Pakistan, the percentage of open terrain in the district, the number of languages spoken in the district, the density of roads in the district, the average temperature in the district, and the average rainfall in the district.

Finally, for additional insight, I use the ANQAR quarterly survey data for several alternate dependent variable measures of security. These include how survey respondents feel each level of government is performing at security, the perceived level of overall security in respondents' districts, and how security has changed in their district over the past six months. The quarterly survey data allow me to test the interactive effect between risk and commitment using a multinomial logit regression. While less spatial and temporal precision is possible since the survey is at quarterly frequency at the district level compared to the more timely and more geographically granular SIGACT data, I can examine the effect as the number of projects in a district up to the survey date interacts with the district being a highway or non-highway district. This gets at the interaction between risk and commitment in yet another way.

Results

Table 7. Risk: Effects within 5km of Projects in Highway and Non-Highway Districts - Matching

VARIABLES	(1) Total SIGACTS	(2) Total SIGACTS	(3) Total SIGACTS	(4) Total IEDs	(5) Total IEDs	(6) Total IEDs
Interaction Non-Highway x Project Start	-0.4217**	-0.4214***	-0.4214***	-0.2165**	-0.2024***	-0.2024***
	(0.1762)	(0.1372)	(0.1355)	(0.0863)	(0.0722)	(0.0710)
Non-Highway Dummy	-0.4929***	0.0811	-1.3951*	-0.3205***	0.0358	0.3854
	(0.1246)	(0.1021)	(0.7386)	(0.0610)	(0.0537)	(0.3874)
Project Start Dummy	0.4943***	0.5270***	0.5270***	0.2023***	0.2079***	0.2079***
	(0.1246)	(0.0932)	(0.0920)	(0.0610)	(0.0490)	(0.0483)
Start Year		1.0888***	1.0656***		0.3873***	0.3794***
		(0.0343)	(0.0356)		(0.0181)	(0.0187)
Average Pre-Project SIGACTS		-0.1152	1.4412***		-0.1493**	-0.8929***
		(0.1242)	(0.4598)		(0.0653)	(0.2411)
Province Dummy (Ghazni = 1)		0.1367***	0.2133***		0.0746***	0.0970***
		(0.0220)	(0.0259)		(0.0116)	(0.0136)
ln Amount Spent (USD)		-0.0871***	-0.0617**		-0.0447***	-0.0508***
		(0.0273)	(0.0277)		(0.0144)	(0.0145)
Population Density (persons/km^2)		0.0001	0.0006		0.0002***	-0.0005*
		(0.0000)	(0.0005)		(0.0000)	(0.0003)
ln Distance from Pakistan (km)		0.5448***	-0.6397		0.2346***	0.2498
		(0.1573)	(0.4898)		(0.0828)	(0.2569)
District Open Terrain (fraction of total area)			-8.7475*			-10.0435***
			(4.5281)			(2.3748)
District Number of Ethnic Groups			-8.3423***			-2.7965***
			(1.1090)			(0.5816)
District Number of Languages Spoken			-0.5231			-0.3067
			(0.4115)			(0.2158)
District Road Density (km/km^2)			-45.4957***			-8.5802**
			(8.3080)			(4.3572)
District Temperature (celsius)			-2.4615***			-1.6992***
			(0.5506)			(0.2888)
District Rainfall (millimeters)			9.9973***			5.2970***
			(1.8590)			(0.9750)
District to Provincial Capital Distance (km)			-0.0532***			-0.0302***
			(0.0106)			(0.0056)
District Mean Elevation (meters)			-0.0117***			-0.0125***
			(0.0043)			(0.0023)
Constant	0.8504***	-276.1043***	-420.6077***	0.4687***	-150.2916***	-180.6495***
	(0.0881)	(44.5466)	(52.4204)	(0.0431)	(23.4409)	(27.4925)
Observations	2,808	2,340	2,340	2,808	2,340	2,340
R-squared	0.0277	0.5218	0.5354	0.0377	0.4491	0.4683

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Estimating the risk equation indicates that fewer total SIGACTS and fewer total IEDs follow the start of projects in non-highway districts compared to highway districts on average when commitment is not considered (Table 7). The graphs in Figures 5a and 5b (previously on page 78) further illuminate the findings in Table 7. Together the table and figures reveal that the estimated effect comes from a relatively large increase in the number of SIGACTS or IEDs following the start of projects on

the highway compared to minimal change in SIGACTS or IEDs following the start of projects off the highway. After they start, matched projects on the highway have 49 percent more SIGACTS (0.42 more per 30 days compared to 0.85 per 30 days on average before project start) and 43 percent more IEDs (0.20 more per 30 days compared to 0.47 per 30 days on average before project start) within five kilometers compared to a non-highway district project.

In the context of similar literature, this result seems to conflict with the Sexton (2016) finding that projects in less stable districts were less effective. Yet, the results might fit within the broader theory in Kalyvas (2006). As Kalyvas would expect, insurgents appear more likely to use violence in contested districts—those along the highway—than in districts that are more firmly in insurgent control—those off of the highway. This initially is interesting, but the relationship between risk and commitment over the longer term has not yet been assessed. Reactions to the finding that there is less violence on average near projects in non-highway districts should be tempered by the reality that the longer-term analysis offers a better view of the effects of development assistance on insurgent strength.

Table 8. Commitment: Effects within 5km of Subsequent Projects - Matching

VARIABLES	(1) Total SIGACTS	(2) Total SIGACTS	(3) Total SIGACTS	(4) Total IEDs	(5) Total IEDs	(6) Total IEDs
Interaction Project Number x Start	0.0423***	0.0519***	0.0519***	0.0134***	0.0169***	0.0169***
	(0.0039)	(0.0035)	(0.0035)	(0.0019)	(0.0019)	(0.0019)
Project Number	0.0480***	0.0123**	0.0139**	0.0290***	0.0067**	0.0053*
	(0.0028)	(0.0048)	(0.0059)	(0.0013)	(0.0026)	(0.0032)
Project Start Dummy	-0.2264***	-0.2592***	-0.2592***	-0.0680	-0.0783*	-0.0783*
	(0.0871)	(0.0763)	(0.0756)	(0.0424)	(0.0415)	(0.0410)
Start Year		1.0022***	0.9509***		0.3533***	0.3362***
		(0.0341)	(0.0379)		(0.0185)	(0.0205)
Average Pre-Project SIGACTS		-0.1043	0.8808**		-0.1468**	-0.9419***
		(0.1171)	(0.4217)		(0.0637)	(0.2285)
Province Dummy (Ghazni = 1)		0.0380*	0.0396		0.0346***	0.0399**
		(0.0229)	(0.0342)		(0.0124)	(0.0185)
ln Amount Spent (USD)		-0.0129	0.0131		-0.0153	-0.0210
		(0.0273)	(0.0286)		(0.0148)	(0.0155)
Population Density (persons/km^2)		-0.0003***	0.0011***		0.0001*	-0.0007***
		(0.0001)	(0.0004)		(0.0000)	(0.0002)
ln Distance from Pakistan (km)		0.0661	0.2226		0.0423	0.1939
		(0.1575)	(0.3609)		(0.0857)	(0.1955)
District Open Terrain (fraction of total area)			-8.5337**			-11.3581***
			(4.1575)			(2.2522)
District Number of Ethnic Groups			-6.0833***			-1.9724***
			(1.1041)			(0.5981)
District Number of Languages Spoken			-0.6124			-0.3004
			(0.3896)			(0.2111)
District Road Density (km/km^2)			-47.3515***			-5.4334
			(7.2745)			(3.9408)
District Temperature (celsius)			-2.0507***			-1.2036***
			(0.4590)			(0.2487)
District Rainfall (millimeters)			7.9096***			3.6611***
			(1.6840)			(0.9122)
District to Provincial Capital Distance (km)			-0.0496***			-0.0296***
			(0.0101)			(0.0054)
District Mean Elevation (meters)			-0.0116***			-0.0089***
			(0.0030)			(0.0016)
Constant	0.0248	-76.3622*	-71.4247	-0.0418	-69.3578***	-65.2479*
	(0.0616)	(46.2666)	(69.0902)	(0.0300)	(25.1750)	(37.4277)
Observations	2,808	2,340	2,340	2,808	2,340	2,340
R-squared	0.3298	0.5719	0.5808	0.3426	0.4727	0.4881

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Results from estimating the commitment equation indicate that when risk is not considered, violence increases as a project's sequence number within its district increases (Table 8). On average, when risk is not specified, each additional project results in eight percent more SIGACTS (0.05 more per 30 days compared to 0.60 per 30 days on average before project start) and six percent more IEDs (0.02 more per 30 days compared to 0.31 per 30 days on average before project start) within five kilometers. This result is consistent with what many have found when studying

Afghanistan without operationalizing risk (Chou 2012, Child 2014, Sexton 2016): development projects appear unable to reduce violence. But, my theory is that when we consider risk and commitment together, the results will be different.

Table 9a. Interaction: Effects within 5km of Subsequent Projects in Highway and Non-Highway Districts - Matching

	(1)	(2)	(3)	(4)	(5)	(6)
	Total	Total	Total	Total	Total	Total
VARIABLES	SIGACTS	SIGACTS	SIGACTS	IEDs	IEDs	IEDs
Interaction Project Number x Non-Highway x Start	-0.0533***	-0.0588***	-0.0588***	-0.0107	-0.0127	-0.0127
	(0.0199)	(0.0194)	(0.0192)	(0.0098)	(0.0106)	(0.0105)
Interaction Non-Highway x Start	0.4527**	0.4741**	0.4741***	0.0112	0.0427	0.0427
	(0.2001)	(0.1842)	(0.1822)	(0.0979)	(0.1008)	(0.0993)
Interaction Project Number x Start	0.0456***	0.0547***	0.0547***	0.0134***	0.0171***	0.0171***
	(0.0042)	(0.0037)	(0.0037)	(0.0020)	(0.0020)	(0.0020)
Interaction Project Number x Non-Highway	-0.0538***	-0.0261*	-0.0329**	-0.0288***	-0.0095	-0.0174**
	(0.0141)	(0.0147)	(0.0148)	(0.0069)	(0.0080)	(0.0081)
Project Number	0.0513***	0.0169***	0.0169***	0.0306***	0.0081***	0.0069**
	(0.0030)	(0.0050)	(0.0059)	(0.0014)	(0.0028)	(0.0032)
Non-Highway Dummy	0.4552***	0.0536	-1.7853**	0.2257***	0.0424	0.2867
	(0.1415)	(0.1343)	(0.6987)	(0.0693)	(0.0735)	(0.3808)
Project Start Dummy	-0.3342***	-0.3431***	-0.3431***	-0.0412	-0.0638	-0.0638
	(0.1273)	(0.1057)	(0.1046)	(0.0623)	(0.0579)	(0.0570)
Start Year		0.9722***	0.9209***		0.3449***	0.3288***
		(0.0344)	(0.0379)		(0.0188)	(0.0206)
Average Pre-Project SIGACTS		-0.2152*	1.1935***		-0.1760***	-0.9770***
		(0.1190)	(0.4346)		(0.0651)	(0.2369)
Province Dummy (Ghazni = 1)		0.0607**	0.0853**		0.0428***	0.0546***
		(0.0239)	(0.0348)		(0.0131)	(0.0190)
ln Amount Spent (USD)		-0.0229	0.0026		-0.0185	-0.0293*
		(0.0272)	(0.0287)		(0.0149)	(0.0156)
Population Density (persons/km^2)		-0.0004***	-0.0000		0.0000	-0.0007***
		(0.0001)	(0.0005)		(0.0000)	(0.0003)
ln Distance from Pakistan (km)		0.3525**	-0.5005		0.1298	0.2967
		(0.1670)	(0.4617)		(0.0914)	(0.2516)
District Open Terrain (fraction of total area)			-11.0700***			-10.8343***
			(4.2779)			(2.3316)
District Number of Ethnic Groups			-6.4562***			-2.1657***
			(1.0982)			(0.5986)
District Number of Languages Spoken			-0.5524			-0.3173
			(0.3874)			(0.2111)
District Road Density (km/km^2)			-38.3159***			-6.0507
			(7.8663)			(4.2874)
District Temperature (celsius)			-1.5153***			-1.3801***
			(0.5421)			(0.2955)
District Rainfall (millimeters)			6.5986***			4.1474***
			(1.8361)			(1.0007)
District to Provincial Capital Distance (km)			-0.0536***			-0.0304***
			(0.0100)			(0.0054)
District Mean Elevation (meters)			-0.0056			-0.0104***
			(0.0042)			(0.0023)
Constant	-0.0829	-123.0979**	-161.5015**	-0.0887**	-86.1040***	-94.6630**
	(0.0900)	(48.3192)	(70.1376)	(0.0441)	(26.4385)	(38.2273)
Observations	2,808	2,340	2,340	2,808	2,340	2,340
R-squared	0.3478	0.5784	0.5889	0.3544	0.4748	0.4919

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

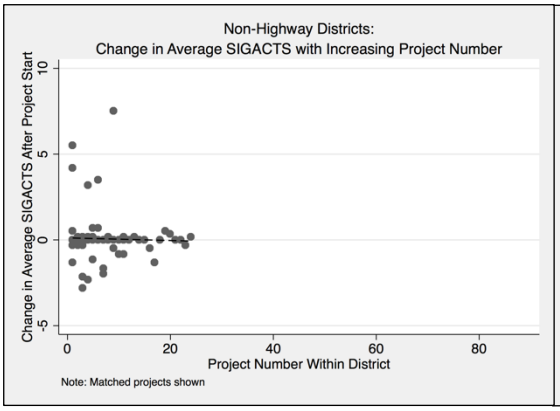

Figure 6a. Change in Average SIGACTS with Increasing Project Number for Non-Highway Districts

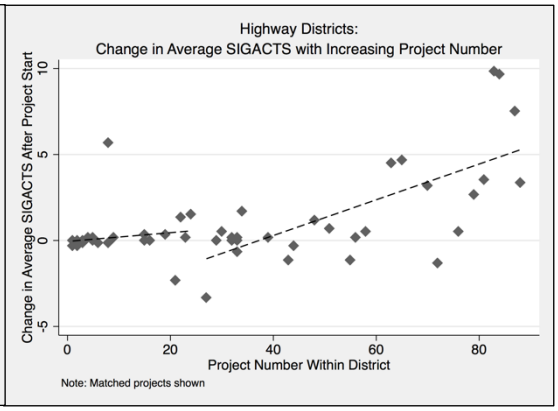

Figure 6b. Change in Average SIGACTS with Increasing Project Number for Highway Districts

Table 9b. Interaction Effect by Type of SIGACTS within 5km of Projects in Highway and Non-Highway Districts - Matching

VARIABLES	(1) IEDs Found and Cleared	(2) IED Explosions	(3) Direct Fire Events	(4) Indirect Fire Events
Interaction Project Number x Non-Highway x Start	-0.0057	-0.0071	-0.0198**	-0.0262**
	(0.0078)	(0.0054)	(0.0079)	(0.0110)
Interaction Non-Highway x Start	0.0077	0.0350	0.2100***	0.2214**
	(0.0735)	(0.0516)	(0.0753)	(0.1041)
Interaction Project Number x Start	0.0093***	0.0077***	0.0142***	0.0234***
	(0.0015)	(0.0010)	(0.0015)	(0.0021)
Interaction Project Number x Non-Highway	-0.0046	-0.0048	-0.0095	-0.0072
	(0.0059)	(0.0041)	(0.0060)	(0.0083)
Project Number	0.0101***	-0.0019	0.0024	0.0064**
	(0.0020)	(0.0014)	(0.0021)	(0.0028)
Non-Highway Dummy	0.0351	0.0073	-0.0487	0.0600
	(0.0536)	(0.0376)	(0.0549)	(0.0759)
Project Start Dummy	-0.0265	-0.0373	-0.1049**	-0.1744***
	(0.0422)	(0.0296)	(0.0432)	(0.0597)
Start Year	-0.0049	0.0477***	0.0506***	-0.0327**
	(0.0095)	(0.0067)	(0.0098)	(0.0135)
Average Pre-Project SIGACTS	0.2402***	0.1046***	0.2550***	0.3724***
	(0.0137)	(0.0096)	(0.0141)	(0.0194)
Province Dummy (Ghazni = 1)	-0.0608	-0.1152***	-0.1350***	0.0958
	(0.0475)	(0.0334)	(0.0486)	(0.0672)
ln Amount Spent (USD)	0.0064	-0.0249***	-0.0223**	0.0179
	(0.0108)	(0.0076)	(0.0111)	(0.0154)
Population Density (persons/km^2)	0.0000	0.0000	-0.0002***	-0.0002***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
ln Distance from Pakistan (km)	-0.0473	0.1771***	0.3295***	-0.1068
	(0.0666)	(0.0468)	(0.0682)	(0.0944)
Constant	9.9972	-96.1012***	-102.7713***	65.7774**
	(19.2760)	(13.5463)	(19.7463)	(27.3021)
Observations	2,340	2,340	2,340	2,340
R-squared	0.4429	0.2682	0.3170	0.3321

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 10. Robustness Checks: Fixed Effects, Bandwidth Variation, and Matching Variation - Matching

VARIABLES	(1) District Fixed Effects Total SIGACTS	(2) 15 Day Bands Total SIGACTS	(3) 45 Day Bands Total SIGACTS	(4) NN Match on Amount Spent and Average Pre-Project SIGACTS Total SIGACTS	(5) NN Match with Full Covariates Total SIGACTS	(6) Coarsened Exact Matching (CEM) Total SIGACTS
Interaction Project Number x Non-Highway x Start	-0.0533***	-0.0588***	-0.0764***	-0.0228	-0.0914***	-0.0380
	(0.0163)	(0.0194)	(0.0261)	(0.0153)	(0.0235)	(0.0294)
Interaction Non-Highway x Start	0.4527***	0.4741**	0.6457***	0.3545**	2.4716***	0.5266**
	(0.1637)	(0.1842)	(0.2475)	(0.1638)	(0.2743)	(0.2378)
Interaction Project Number x Start	0.0456***	0.0547***	0.0687***	0.0187***	0.0873***	0.0421***
	(0.0034)	(0.0037)	(0.0050)	(0.0040)	(0.0056)	(0.0036)
Interaction Project Number x Non-Highway	-0.0029	-0.0261*	-0.0258	-0.0076	-0.0355**	-0.0167
	(0.0141)	(0.0147)	(0.0198)	(0.0113)	(0.0176)	(0.0217)
Project Number	0.0326***	0.0169***	0.0145**	-0.0114***	0.0078	0.0076
	(0.0065)	(0.0050)	(0.0070)	(0.0036)	(0.0048)	(0.0049)
Non-Highway Dummy	0.3615	0.0536	-0.0068	0.0691	0.1894	0.1063
	(0.2872)	(0.1343)	(0.1808)	(0.1177)	(0.2172)	(0.1746)
Project Start Dummy	-0.3342***	-0.3431***	-0.3928***	-0.2235*	-2.3407***	-0.4265***
	(0.1042)	(0.1057)	(0.1421)	(0.1147)	(0.2068)	(0.1150)
Start Year	-0.0923*	0.0607**	0.0732**	0.1102***	0.2083***	0.0189
	(0.0490)	(0.0239)	(0.0320)	(0.0193)	(0.0379)	(0.0284)
Average Pre-Project SIGACTS	0.8795***	0.9722***	1.0829***	0.8766***	0.8632***	0.9834***
	(0.0341)	(0.0344)	(0.0345)	(0.0360)	(0.0291)	(0.0355)
Province Dummy (Ghazni = 1)	0.4875	-0.2152*	-0.2061	-0.1437	-0.2415	-0.0669
	(0.3055)	(0.1190)	(0.1598)	(0.1207)	(0.2341)	(0.1614)
ln Amount Spent (USD)		-0.0229	-0.0123	-0.0765***	-0.0421	-0.1137***
		(0.0272)	(0.0363)	(0.0188)	(0.0412)	(0.0359)
Population Density (persons/km^2)		-0.0004***	-0.0006***	0.0001**	-0.0002***	-0.0002***
		(0.0001)	(0.0001)	(0.0000)	(0.0001)	(0.0001)
ln Distance from Pakistan (km)		0.3525**	0.4604**	0.5025***	0.8535***	0.0629
		(0.1670)	(0.2240)	(0.1368)	(0.2362)	(0.2004)
District Fixed Effects	Yes	No	No	No	No	No
Constant	184.9986*	-123.0979**	-148.7875**	-222.5932***	-421.6432***	-37.2390
	(98.1020)	(48.3192)	(64.7608)	(39.1692)	(76.6458)	(57.4905)
Observations	2,808	2,340	2,340	1,992	2,148	2,418
R-squared	0.5656	0.5784	0.6132	0.3620	0.5663	0.5204

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 11. Robustness Check: Effects within Varying Distance of Subsequent Projects in Highway and Non-Highway Districts - Matching

VARIABLES	(1) 1 km Total SIGACTS	(2) 3 km Total SIGACTS	(3) 5 km Total SIGACTS	(4) 7 km Total SIGACTS	(5) 9 km Total SIGACTS
Interaction Project Number x Non-Highway x Start	-0.0057	-0.0177	-0.0588***	-0.0806***	-0.0889***
	(0.0074)	(0.0125)	(0.0194)	(0.0258)	(0.0315)
Interaction Non-Highway x Start	0.0710	0.1738	0.4741**	0.7279***	0.9071***
	(0.0700)	(0.1184)	(0.1842)	(0.2446)	(0.2982)
Interaction Project Number x Start	0.0099***	0.0245***	0.0547***	0.0684***	0.0809***
	(0.0014)	(0.0024)	(0.0037)	(0.0049)	(0.0060)
Interaction Project Number x Non-Highway	-0.0070	-0.0164*	-0.0261*	-0.0371*	-0.0459*
	(0.0055)	(0.0094)	(0.0147)	(0.0194)	(0.0237)
Project Number	0.0057***	0.0141***	0.0169***	0.0263***	0.0313***
	(0.0019)	(0.0032)	(0.0050)	(0.0065)	(0.0078)
Non-Highway Dummy	0.0175	0.0456	0.0536	0.1326	0.1416
	(0.0510)	(0.0861)	(0.1343)	(0.1777)	(0.2164)
Project Start Dummy	-0.0579	-0.1399**	-0.3431***	-0.5377***	-0.6783***
	(0.0402)	(0.0680)	(0.1057)	(0.1404)	(0.1712)
Start Year	0.0136	0.0162	0.0607**	0.0725**	0.1139***
	(0.0089)	(0.0152)	(0.0239)	(0.0329)	(0.0416)
Average Pre-Project SIGACTS	0.9492***	1.0070***	0.9722***	0.8985***	0.8951***
	(0.0495)	(0.0411)	(0.0344)	(0.0282)	(0.0276)
Province Dummy (Ghazni = 1)	-0.0841*	-0.1398*	-0.2152*	-0.3576**	-0.5689***
	(0.0445)	(0.0756)	(0.1190)	(0.1572)	(0.1928)
ln Amount Spent (USD)	0.0024	-0.0065	-0.0229	-0.0571	-0.0680
	(0.0103)	(0.0178)	(0.0272)	(0.0359)	(0.0438)
Population Density (persons/km^2)	-0.0001***	-0.0003***	-0.0004***	-0.0005***	-0.0006***
	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0001)
ln Distance from Pakistan (km)	0.0716	0.1324	0.3525**	0.4387*	0.6747**
	(0.0630)	(0.1067)	(0.1670)	(0.2257)	(0.2803)
Constant	-27.6387	-32.9095	-123.0979**	-146.8241**	-230.7467***
	(18.0950)	(30.7310)	(48.3192)	(66.6143)	(84.3085)
Observations	2,340	2,340	2,340	2,340	2,340
R-squared	0.2770	0.4618	0.5784	0.6050	0.6108

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Estimation of the interaction between risk and commitment from equation (3) suggests that as the number of projects in non-highway districts (riskier areas) increases, the effect on total SIGACTS is small but negative and statistically significant (Table 9a). Similar to Table 7, a figure helps with interpretation. Figures 6a and 6b show the average change in SIGACTS from before to after the start of projects in highway and non-highway districts. Within the first 24 projects—the maximum number of projects in a non-highway district—the difference in the change in SIGACTS between the two areas appears minimal. However, after 24 projects, the change in SIGACTS increases at a greater rate for projects in highway districts (Figure 6b). These graphs illuminate that it is the lack of violence reduction despite increasing commitment in highway areas that produces the negative coefficient on the interaction of project number, non-highway, and project start in Table 9a. It is important to keep in mind as well that these are projects at relatively close to the same time period after matching, but with different levels of commitment across projects. In this light, the analysis reveals more about the weakness in projects of low risk but high commitment—sustained development assistance on the highway—than it does about the effects of projects with both risk and commitment.

Thus, the appropriate interpretation of the magnitude of the effect in Table 9a is that when we account for the longer term by including the project sequence number, each additional project in a highway district results in an average increase of approximately six percent more SIGACTS (an increase of 0.05 SIGACTS per 30 days from the before project average of 0.85 per 30 days) compared to a non-highway district project. This difference is driven by direct fire and indirect fire attack

increases, not by an increase in IEDs (Table 9b). The results when I substitute district fixed effects for the environmental covariates, adjust the time band width, or alter the matching algorithm as robustness checks are broadly similar in magnitude and direction (Table 10). The same is true when the spatial bounds are adjusted (Table 11).

The specification in Table 9a also estimates that total SIGACTS increase when risk or commitment independently increase. That is, the coefficients on the interaction of non-highway and start (just risk) as well as the interaction of project number and start (just commitment) are both positive and significant. This result is consistent with my theory that risk and commitment together have a different effect than risk or commitment independently.

In addition, the interaction of the project number and non-highway variables in Table 9a also controls for the selection bias that exists when deciding upon a project's location. The negative coefficient on the interaction of project number and non-highway indicates that each subsequent project in a non-highway district was started in an area with less violence on average. However, the estimated effect from the interaction of project number, non-highway, and start is still significant even though the non-highway projects are being emplaced in areas of decreasing violence. This separation of the selection bias from the treatment effect is helpful for appropriately estimating the interactive effect of risk and commitment.

Table 12. Alternate Parameters and Definitions of Commitment - Matching

	(1) Limit to First 24 Projects in District	(2) Amount Spent Definition of Commitment	(3) Planned Project Duration Definition of Commitment
VARIABLES	Total SIGACTS	Total SIGACTS	Total SIGACTS
Interaction Project Number x Non-Highway x Start	**-0.0068**		
	(0.0142)		
Interaction Non-Highway x Start	0.1483	-1.9089*	-0.1239
	(0.1472)	(0.9984)	(0.1595)
Interaction Project Number x Start	0.0026		
	(0.0046)		
Interaction Project Number x Non-Highway	-0.0097		
	(0.0104)		
Project Number	-0.0203***		
	(0.0052)		
Interaction ln(Amount Spent) x Non-Highway x Start		**0.1584**	
		(0.1042)	
Interaction ln(Amount Spent) x Start		-0.1349*	
		(0.0699)	
Interaction ln(Amount Spent) x Non-Highway		0.0259	
		(0.0745)	
ln Amount Spent (USD)	-0.0603**	-0.0684	-0.0546*
	(0.0246)	(0.0507)	(0.0299)
Interaction Planned Duration x Non-Highway x Start			**-0.0143****
			(0.0018)
Interaction Planned Duration x Start			0.0146***
			(0.0014)
Interaction Planned Duration x Non-Highway			0.0001
			(0.0014)
Planned Duration (days)			-0.0033***
			(0.0011)
Non-Highway Dummy	-0.1667	-0.1727	-0.2265*
	(0.1137)	(0.7145)	(0.1220)
Project Start Dummy	-0.0174	1.7891***	0.2503**
	(0.1022)	(0.6603)	(0.1079)
Start Year	0.1946***	0.1359***	0.2785***
	(0.0243)	(0.0220)	(0.0331)
Average Pre-Project SIGACTS	0.7339***	1.1003***	0.9895***
	(0.0361)	(0.0348)	(0.0380)
Province Dummy (Ghazni = 1)	-0.3882**	-0.1352	0.0338
	(0.1583)	(0.1245)	(0.1634)
Population Density (persons/km^2)	-0.0000	0.0001	-0.0002***
	(0.0001)	(0.0000)	(0.0001)
ln Distance from Pakistan (km)	0.9126***	0.5540***	0.7210***
	(0.1492)	(0.1573)	(0.2365)
Constant	-393.6230***	-274.8076***	-561.4974***
	(49.0844)	(44.5136)	(66.8494)
Observations	2,028	2,340	2,016
R-squared	0.3474	0.5234	0.5655

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Note: Coefficients of interest are in bold.

To examine whether the effects in terms of the change in violence from the first 24 projects are different in highway and non-highway areas, I limit the analysis to the first 24 projects before matching and then complete the same process as in Table 9a. The lack of significance on the interaction of project number, non-highway, and project start in column (1) of Table 12 reflects that there is not a statistically significant difference between highway and non-highway projects within the first 24 projects. This result is what we would expect from the visual appearance of Figures 6a and 6b.

We are left wondering whether projects in non-highway districts (that is, projects with risk) would continue to subdue violence after 24 projects, whether SIGACTS would begin to increase as they do with additional projects in highway districts, or whether SIGACTS might decrease with additional commitment to non-highway districts. Unfortunately, this uncertainty is a direct reflection of the great headwinds to the projection of development assistance off the highway as identified in Chapter 1 and the short period of the surge in Afghanistan when it became somewhat easier for counterinsurgents to implement development assistance in outlying districts away from the highway. The result is that we know more about the longer-term effects of development assistance in less risky areas than in more risky locations.

Alternate Definitions of Risk and Commitment

Table 13a. Amount Spent Definition of Commitment - Matching

	(1) Highway	(2) Non-Highway
0-50K USD	104	102
>50K USD	13	15

Table 13b. Planned Duration Definition of Commitment - Matching

	(1) Highway	(2) Non-Highway
0-100 days	90	93
101-500 days	11	9
>500 days	11	9

Because of the limitation in the number of projects in non-highway districts, it is worth considering whether other potential measures of commitment can increase our confidence that the effects of commitment on violence vary across areas with different levels of risk. Two alternative measures of commitment are the amount spent on a project and the planned duration of a project. Fortunately, both of these measures are more balanced between highway and non-highway areas compared to the project numbers in highway and non-highway areas (Tables 13a and 13b).

The interaction of the natural log of the amount spent, non-highway, and project start in column (2) of Table 12 is positive but not statistically significant. This result is consistent with Berman, Shapiro, and Felter (2011a, 2013) in which higher cost projects do not reduce violence. In this context, the result reflects that the quantity of financial resources invested is not a strong sign of commitment. Multiple projects do more to show that counterinsurgents will remain in a place than having one really costly project.

The interaction of planned project duration, non-highway, and project start in column (3) of Table 12 is negative and statistically significant, indicating that projects planned for longer in more risky non-highway districts result in less violence than projects planned for longer in less risky highway districts. Planned project duration is

likely a weaker signal of commitment compared to the project number because the information about planned duration is much less public; it may even be unspoken. While local residents might have a sense that a project will take longer, the signal of commitment is less explicit. Still, project duration has a time component, unlike the amount of resources spent, and that time component may contribute to its significance. The results reflect that the effects of commitment embodied in planned project duration differs in a meaningful way across higher and lower risk areas. Because the estimated effect is in days, a project planned for an additional 30 days in a non-highway district results in 0.43 fewer SIGACTS per 30 days compared to a project in a highway district—51 percent less than the pre-project average number of 0.85 SIGACTS per 30 days for matched projects in highway districts. The significance of this definition of commitment supports the idea that commitment in Afghanistan requires time.

In terms of risk, an alternative definition aids robustness and also helps for transferability to areas without a linear feature like Highway 1. Alternative ways to operationalize a measure of risk might be to use the radial distance of a project from coalition force bases or simply the distance of a project from a provincial capital or urban center. Attempting the latter method, I compare the effects of projects away from the provincial capitals in Ghazni and Zabul to the effects of projects in the districts with the provincial capitals.

Table 14. Effects within 5km of Subsequent Projects in Capital and Non-Capital Districts - Matching

VARIABLES	(1) Total SIGACTS	(2) Total SIGACTS	(3) Total SIGACTS
Interaction Project Number x Away Capital x Start	-0.0341***	-0.0437***	-0.0437***
	(0.0068)	(0.0075)	(0.0075)
Interaction Away Capital x Start	0.0523	0.2264	0.2264
	(0.1870)	(0.1878)	(0.1872)
Interaction Project Number x Start	0.0307***	0.0350***	0.0350***
	(0.0040)	(0.0039)	(0.0039)
Interaction Project Number x Away Capital	-0.0505***	-0.0143**	0.0004
	(0.0048)	(0.0057)	(0.0069)
Project Number	0.0625***	0.0106***	0.0194***
	(0.0028)	(0.0037)	(0.0043)
Away from Capital Dummy	0.2819**	-2.1945***	-4.7225***
	(0.1322)	(0.4035)	(0.7028)
Project Start Dummy	-0.0376	-0.1181	-0.1181
	(0.1610)	(0.1534)	(0.1529)
Start Year		0.0839***	-0.0133
		(0.0252)	(0.0352)
Average Pre-Project SIGACTS		0.7730***	0.7413***
		(0.0286)	(0.0297)
Province Dummy (Ghazni = 1)		-0.1024	0.8857**
		(0.1406)	(0.4224)
ln Amount Spent (USD)		0.0023	0.0191
		(0.0261)	(0.0269)
Population Density (persons/km^2)		-0.0007***	0.0006
		(0.0001)	(0.0004)
ln Distance from Pakistan (km)		0.3955**	0.8929**
		(0.1851)	(0.3510)
District Open Terrain (fraction of total area)			12.0906***
			(4.0570)
District Number of Ethnic Groups			2.2233***
			(0.7763)
District Number of Languages Spoken			-0.0887
			(0.4253)
District Road Density (km/km^2)			-8.7407*
			(4.6336)
District Temperature (celsius)			1.9550***
			(0.4236)
District Rainfall (millimeters)			-5.7617***
			(1.3112)
District to Provincial Capital Distance (km)			0.0278***
			(0.0083)
District Mean Elevation (meters)			0.0157***
			(0.0033)
Constant	-0.0022	-167.8289***	9.3158
	(0.1138)	(51.1261)	(70.8145)
Observations	5,112	3,852	3,852
R-squared	0.3429	0.4865	0.4906

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The effects from the alternate definition of risk are quite similar in magnitude and significance to those earlier when I defined risk as projects in non-highway districts (Table 14). Still, neither method perfectly approximates the actual disposition of insurgent control. It would be useful for researchers to consider additional ways in which to operationalize measures of risk. The aim of this analysis is to introduce risk and commitment as critical variables.

Integrating Additional Data Sources

Popular Perceptions

Table 15a. Interaction Effect on Perception of GIRoA at Securing the Country, Marginal Effects

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Very Poorly	A Little Poorly	Neither Poor or Well	A Little Well	Very Well
Interaction Project Number x Non-Highway	-0.0085***	0.0051*	0.0020	0.0041*	-0.0026
	(0.0031)	(0.0030)	(0.0021)	(0.0024)	(0.0024)
Project Number	-0.0014**	-0.0002	0.0017***	-0.0006	0.0004
	(0.0006)	(0.0007)	(0.0006)	(0.0006)	(0.0003)
Non-Highway Dummy	0.2315	-0.1071*	-0.0550	-0.0895**	0.0203
	(0.7374)	(0.0623)	(0.0458)	(0.0402)	(0.0478)
Start Year	0.0938***	0.0238	-0.0675***	-0.0314	-0.0186
	(0.0213)	(0.0217)	(0.0157)	(0.0191)	(0.0116)
Province Dummy (Ghazni = 1)	0.0780**	0.0453	0.1227***	-0.0413	-0.2047***
	(0.0359)	(0.0406)	(0.0314)	(0.0330)	(0.0412)
ln Amount Spent (USD)	0.0036	-0.0192*	0.0263***	-0.0052	-0.0056
	(0.0115)	(0.0116)	(0.0091)	(0.0095)	(0.0040)
Population Density (persons/km^2)	-0.0000	0.0000	-0.0000**	0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	1,857	1,857	1,857	1,857	1,857

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 15b. Interaction Effect on Perception of Provincial Governor at Securing the Province, Marginal Effects

VARIABLES	(1) Very Poorly	(2) A Little Poorly	(3) Neither Poor or Well	(4) A Little Well	(5) Very Well
Interaction Project Number x Non-Highway	-0.0027	-0.0057*	0.0037*	0.0045	0.0001
	(0.0027)	(0.0031)	(0.0022)	(0.0030)	(0.0014)
Project Number	-0.0024***	0.0001	0.0018***	0.0000	0.0005*
	(0.0006)	(0.0007)	(0.0006)	(0.0006)	(0.0003)
Non-Highway Dummy	0.0763	0.1177	-0.0738	-0.1402***	0.0200
	(0.0740)	(0.0810)	(0.0490)	(0.0324)	(0.0348)
Start Year	0.1282***	0.0127	-0.0436**	-0.0709***	-0.0264***
	(0.0248)	(0.0218)	(0.0177)	(0.0197)	(0.0094)
Province Dummy (Ghazni = 1)	0.0787**	0.0935**	0.0986***	-0.1189***	-0.1519***
	(0.0359)	(0.0392)	(0.0357)	(0.0383)	(0.0346)
ln Amount Spent	-0.0035	0.0071	0.0004	-0.0054	0.0013
	(0.0113)	(0.0117)	(0.0095)	(0.0093)	(0.0036)
Population Density (persons/km^2)	0.0000	0.0000	-0.0000**	0.0000	-0.0000*
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	1,849	1,849	1,849	1,849	1,849

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 15c. Effect on Perception of District Governor at Securing the District, Marginal Effects

VARIABLES	(1) Very Poorly	(2) A Little Poorly	(3) Neither Poor or Well	(4) A Little Well	(5) Very Well
Interaction Project Number x Non-Highway	0.0057**	-0.0066*	0.0021	0.0039	-0.0051*
	(0.0029)	(0.0039)	(0.0023)	(0.0028)	(0.0029)
Project Number	-0.0003	-0.0009	0.0020***	-0.0016***	0.0008***
	(0.0007)	(0.0007)	(0.0006)	(0.0006)	(0.0003)
Non-Highway Dummy	-0.0832	0.0057	0.0744	-0.0774*	0.0805
	(0.0615)	(0.0887)	(0.0818)	(0.0463)	(0.0863)
Start Year	0.0241	0.0816***	-0.0650***	-0.0051	-0.0356***
	(0.0257)	(0.0282)	(0.0216)	(0.0235)	(0.0124)
Province Dummy (Ghazni = 1)	0.0418	0.1018**	0.1205***	-0.0651*	-0.1990***
	(0.0374)	(0.0420)	(0.0359)	(0.0358)	(0.0460)
ln Amount Spent	0.0159	-0.0096	0.0086	-0.0160	0.0011
	(0.0124)	(0.0132)	(0.0104)	(0.0105)	(0.0051)
Population Density (persons/km^2)	-0.0000**	0.0000	-0.0000	0.0001***	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	1,494	1,494	1,494	1,494	1,494

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 15d. Interaction Effect on Perception of Overall Security in Mantaqa (District), Marginal Effects

VARIABLES	(1) Bad	(2) Fair	(3) Good
Interaction Project Number x Non-Highway	0.0124***	-0.0005	-0.0119***
	(0.0032)	(0.0031)	(0.0041)
Project Number	-0.0017**	0.0007	0.0009
	(0.0007)	(0.0007)	(0.0007)
Non-Highway Dummy	-0.2116***	-0.0049	0.2165**
	(0.0531)	(0.0776)	(0.0888)
Start Year	0.0318	-0.0191	-0.0127
	(0.0245)	(0.0215)	(0.0218)
Province Dummy (Ghazni = 1)	-0.2329***	0.2826***	-0.0497
	(0.0386)	(0.0372)	(0.0393)
ln Amount Spent	-0.0048	-0.0005	0.0053
	(0.0123)	(0.0124)	(0.0116)
Population Density (persons/km^2)	-0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)
Observations	1,856	1,856	1,856

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 15e. Interaction Effect on Perception of Change in Security in Mantaqa (District) Over Past Six Months, Marginal Effects

VARIABLES	(1) Worse	(2) The Same	(3) Better
Interaction Project Number x Non-Highway	0.0060**	0.0022	-0.0082**
	(0.0027)	(0.0034)	(0.0036)
Project Number	-0.0003	-0.0012*	0.0015**
	(0.0006)	(0.0007)	(0.0006)
Non-Highway Dummy	-0.0402	-0.1536**	0.1938**
	(0.0639)	(0.0703)	(0.0865)
Start Year	0.0492**	0.0103	-0.0595***
	(0.0219)	(0.0232)	(0.0206)
Province Dummy (Ghazni = 1)	-0.0961***	0.1892***	-0.0931**
	(0.0367)	(0.0406)	(0.0375)
ln Amount Spent	-0.0084	0.0011	0.0073
	(0.0110)	(0.0123)	(0.0105)
Population Density (persons/km^2)	-0.0000**	0.0001***	-0.0000
	(0.0000)	(0.0000)	(0.0000)
Observations	1,857	1,857	1,857

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

ANQAR data on popular perceptions offer alternate dependent variable measures by which to gauge the impact of development assistance. The ANQAR data include perceptions of performance of different levels of government at securing the areas of their responsibility, perceptions of overall security conditions, and perceptions of recent changes in security. Here, commitment is the number of

projects within a district up to an ANQAR survey date, and risk remains as before a project's emplacement in a non-highway district. The survey results are coded as discrete numbers, so I examine the marginal effects of additional projects on and off the highway with a multinomial logit model. The coefficient on the interaction of project number and non-highway indicates the marginal effect on the survey result of increasing commitment with an additional project in a non-highway district, while the coefficient on project number indicates the marginal effect on the survey result of increasing commitment with an additional project in a highway district.

In Tables 15a, 15b, and 15c, impressions of the government overall (GIRoA), the provincial governor, and the district governor at securing their areas of responsibility as projects increase in non-highway districts offer mixed evidence relative to the theory. Evidence in favor of the theory of risk and commitment exists in the reduction in the perception that GIRoA is performing "very poorly" at securing the country (Table 15a) and the reduction in the perceptions that provincial (Table 15b) and district (Table 15c) governors are performing "a little poorly" at securing their areas of responsibility as project numbers increase in non-highway districts compared to highway districts. The marginal decreases in the "a little poorly" and "very poorly" survey results in non-highway districts are statistically significant and at least five times larger in magnitude than the corresponding estimated coefficients in highway districts. Further, a difference of similar magnitude between additional projects in non-highway and highway districts is evident in the increase in the "a little well" perception of GIRoA at securing the country (Table 15a). However, some of the data run against the theory, such as the increase in the perception that GIRoA is

performing “a little poorly” at securing the country (Table 15a) and the increase in the perception that district governors are performing “very poorly” at securing their districts (Table 15c) as the number of projects in non-highway districts increase.

Moreover, the perceptions of the overall level of security in one’s district or the changes in security in one’s district in Tables 15d and 15e are not consistent with the theory. There is no evidence of security improvements with additional commitment to non-highway districts in Tables 15d and 15e. In sum, the effects of risk and commitment on security in the ANQAR data remain inconclusive.

PRT Interviews

Interviews with PRT members provide a final additional data source for discerning whether the effects of commitment are different in areas involving varied levels of risk. To start, PRT officials were clear that development was not possible in the areas of greatest risk. One State Department official in Ghazni suggested that certain districts were “lost”:

> Almost the three tiers. Ghazni City, we’re going to have stuff in there, government is going to execute that. Then the lost districts; nothing is going to happen. And, there were the ones in the middle, and we actually tried to make a difference. (August 16, 2018 Interview.)

With this lens kept in mind, projects started in non-highway districts were not in the riskiest areas. They were in areas of moderate risk—riskier than on the highway but not in the riskiest areas with high degrees of insurgent control. The riskiest areas with high degrees of insurgent control—areas deep into insurgent support zones—did not receive projects, and stabilizing effects from development should not be expected in them.

However, some PRT members perceived that stability was possible if both moderate risk and commitment could be sustained. For instance, a State Department official in Zabul described what he called an "experiment" in which heavy security, development, and governance investments were committed to a local area away from the highway:

> We started to explore this idea that what we would do was have this massive security presence and just lock this down. The people in the villages were absolutely not going to see the Taliban for weeks on end. It was not like hey how you doing, and then tonight the enemy is there. It is going to be like the enemy is not going to be here for a long time. Let's just get people used to that… It was the most remarkable and efficient operation, I ever saw.
>
> But then we realized, no, this is an experiment. Then, part of the experiment was, let's see, let's see how long it takes for the enemy to come back in. How much resistance can you build back in? And, of course, inevitably, their resistance to their infiltration broke down. But it was interesting to see how the village broke down gradually…
>
> See what happened there was that it became obvious to everyone concerned, and see for that time in Zabul, it took a whole Battalion of Airborne IN [approximately 650 to 700 Soldiers] to make a district secure. And we showed that it was possible. We showed that if everything was secure, we could absolutely make a lot of progress. (July 24, 2018 Interview.)

He later continued,

> We thought that the length of time that we would have to be there was—and this kind of goes without saying—it was kind of contingent on what the Afghans could bring to the table.
>
> What we did with that intervention in Suri, for example, and then what we jointly tried to do with the Canadians later in Kandahar. We tried to get the central government in Kabul to send a whole bunch of civil servants down to where we were intervening to, you know, develop a "government in a box" for a while. But, I tell you all these folks from Kabul didn't have the staying power.
>
> If they had actually stayed for a year, the Afghans, maybe it would have only taken a year or two years. It almost was counterproductive

> because it's not like the Afghan people in the villages didn't know what was going on. They saw that all these Tajik, and all these various effeminate guys from Kabul would come down and after a while they couldn't take it, you know, it was too dusty and icky down here. That almost alienated them from their government even worse. (July 24, 2018 Interview.)

As this official described it, risk could contribute to stabilization in the short term, but the absence of commitment meant that stabilizing effects would not be enduring. Commitment required both high concentrations of security forces and high numbers of government officials who could sustain development. Thus, the fundamental challenge from the PRT perspective was similar to the challenge of sustaining counterinsurgent operations in "red" (insurgent controlled) areas presented in Galula (1964, 72-3).[11]

The best any PRT could achieve in the riskier areas was sporadic commitment. One PRT commander in Ghazni described,

> We had one big unit and one big focus. We were just kind of making incremental efforts. I am reaching my finger across my desk, right, and I am poking, and each one of those times was a big logistical movement, a big convoy, a big mission planning. (October 1, 2018 Interview.)

Even still, the projects in riskier areas sometimes worked differently than other projects. Another Ghazni PRT commander said,

> But the ones like in Andar, the Taliban essentially had an approval process too. Sometimes our contractors would come by and they would factor into their bid basically a bribe to pay the Taliban to let them build it there. Once the contractor said hey, I can build this. The Taliban had essentially already approved it for the area. So once they did that, ok, it was going to get built. But, there were plenty of proposed projects where magically we can't find any contractors who will bid on this because for whatever reason the Taliban didn't want

[11] Galula writes, "If the counterinsurgent operations are sustained over a period of months, the guerrilla losses may not be so easily replaced. The question is, can the counterinsurgent operations be so sustained?" (72-3).

> this to happen in this area. (August 10, 2018 Interview.)

A third Ghazni PRT commander said,

> There was a lot of, if I don't get my cut of the money, the Taliban miraculously started attacking. If they got their cut of the money, it was pretty convenient, the Taliban were not quite as active. (October 10, 2018 Interview.)

This dynamic with the Taliban participating in the development project process and allowing projects to occur in areas of moderate risk reflects a different stabilization mechanism than those previously discussed: co-option.

The co-option mechanism suggests that insurgents allow development assistance to take place because it benefits them directly. Co-option seemed to have some stabilizing characteristics in risky areas despite uneven commitment. Yet, while co-option might start to have a beneficial impact in reducing violence with less commitment than other mechanisms, it still requires persistent commitment into the longer-term to continue to stem violence. The stabilizing effects of co-option cease with the end of development assistance.

Failing to maintain commitment in riskier areas raised expectations and led to disappointment. As a consequence of the challenge of maintaining commitment to riskier areas, a State Department official in Ghazni concluded that commitment to areas of less risk would be better than sporadic risk:

> I think it probably would have been better to leave some places completely untouched. And I'm a Peace Corps guy; I want to get as far away from the capital and have the best local relationships and intel as anybody. But, given that we have space and knowledge constraints and difficulty in processing and retaining information, sharing knowledge, I think it would probably be better to leave entire districts completely untouched and have more consistent, regular engagements with a couple of key prioritized places and people.

> As much as I love getting out of a car and handing out toothbrushes and erasers to little kids somewhere—and maybe somehow that is planting little seeds of positivity, things like that—ultimately, we only do that when we are meeting with someone else talking about something else bigger and broader. And I think we probably didn't have the ability and the bandwidth, and the resources, to follow through. It's impossible to say, but I think we disappointed as many people as we could placate them based on our inability to follow through.
>
> I would have just been absolutely militant about limiting our focus to a couple of things and doing them really well and owning them. And that means relationships, and follow through, and access, and consistency, and that sort of whole of government approach. I would have rather focused on a few things like that. I think it would have left a greater impact and a greater legacy. (August 28, 2018 Interview.)

This perspective emphasizes that the demands of achieving risk and commitment were almost too great and that risk without commitment was not sufficient. The remaining option was commitment without risk—an option that this analysis shows should not be expected to reduce violence.

Discussion

While this empirical analysis aims to discern the relevance of risk and commitment within a micro-level case study, the results are suggestive but not conclusive. It is not clear what the results of higher levels of commitment to risky areas would be. In addition to the limitations of the data, several dynamics contribute to making the effects of risk and commitment difficult to distinguish.

First, insurgents have the advantage of an opportunity to remain patient, neither attacking nor exposing themselves to counterinsurgents. By including a project's sequence number, this analysis reaches toward the longer-term horizon to see beyond insurgent patience. However, it remains arguable that the lack of

sufficient projects in non-highway districts (risky areas) does not permit a sufficiently long-term view, and the absence of violence in non-highway areas may still reflect at least some insurgent patience.

Second, insurgents typically have a great deal of mobility. Thus, the lack of insurgent activity in non-highway areas following projects may be because insurgents transfer their efforts to other nearby areas. In principle, I expect that insurgent support zones are less mobile than their engagement areas, which would translate to less mobility in non-highway areas. However, the extent to which this is true is difficult to discern.

Third, insurgents may be substituting non-violent means for violent means in response to development assistance in non-highway areas. Such a change was not detectable with the data sources used in this analysis. Data capturing the insurgent perspective might be necessary to investigate this claim.

Finally, the fight in Afghanistan is intensely local, making the identification of unified policy trends difficult. One State Department official in Ghazni offered that "Every single project was its own case study" (August 28, 2018 interview). Despite maximum efforts to appropriately match projects and control for environmental differences in regressions, discerning clear trends remains difficult.

Refined Theory

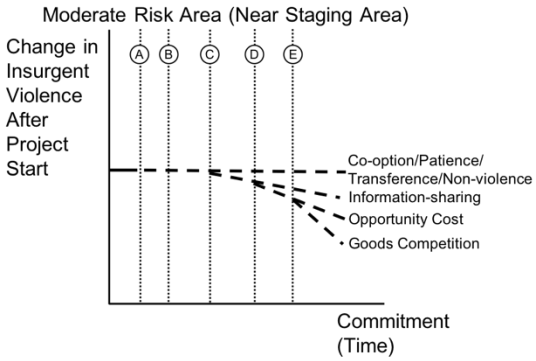

Figure 7a. Refined Theory of Moderate Risk Area

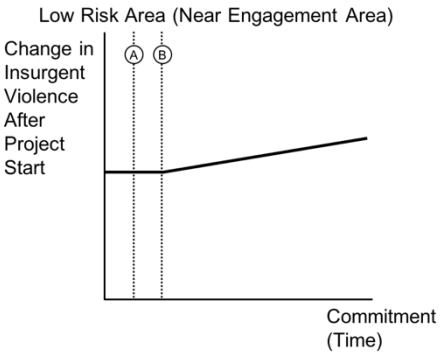

Figure 7b. Refined Theory of Low Risk Area

Despite the data constraints and some of the competing dynamics discussed, this study allows refinement of my initial theory and creates an opportunity for further study along the lines of risk and commitment. The stylized graphs in Figure 7a and 7b aid in illustrating remaining uncertainties rather than offering accuracy or precision. Figures 7a and 7b follow the same form as Figures 6a and 6b, indicating the change in violence against increasing commitment over time. However, in Figures 7a and 7b, the solid lines in both figures show what was empirically supported by this study, and the dashed lines offer theoretical possibilities where gaps remain.

Figure 7b shows that in a low-risk area—such as near an engagement area on the highway—the change in violence following a project's start is initially flat followed by a later increase after an inflection point at "B". This figure is essentially a stylized remake of Figure 6b. Figure 7a shows several ways in which in a moderate-risk area—such as near insurgent staging areas off the highway—the change in violence after a project's start might evolve differently with increasing commitment. Those possible differences are highlighted with the multiple dashed

lines. (A high-risk area—such as near insurgent bed-down locations—is not included as the qualitative interviews indicated such areas were impractical for development.) The differences between Figure 7a and 7b are theoretical and are intended to frame future research.

One difference between moderate risk and low risk areas is that co-option may contribute to the lack of an increase in violence with increasing commitment in moderate risk areas. While moderate risk and low risk areas look the same quantitatively at lower levels of commitment—as they do between the y-axis and point "B" on Figure 7a—there might be qualitative differences—such as with co-option starting after point "A" in the moderate risk area. The qualitative interviews suggesting that insurgents sometimes chose to allow or even directly labored in development projects despite low levels of commitment to riskier areas offers some evidence of this possibility. At the extreme, people working to build the development assistance project might during the previous week have been wielding a weapon aimed at counterinsurgents. Alternatively, insurgent patience, transference, and non-violence could also explain persistent flat levels of violence with increasing commitment in moderate risk areas. Differentiating between these arguments could be on an agenda for future research.

A second difference in moderate risk areas is that the longer-term development mechanisms begin to have an effect as commitment further increases beyond point "B." This level of commitment to moderate risk areas did not appear in this study. Thus, I retain the theory that information-sharing, opportunity cost, and goods competition could each appear with increasing levels of commitment to

moderate risk areas—possibly in that order of increasing commitment with each additional mechanism becoming active at "C", "D" or "E" levels of commitment. This study offers limited evidence that such differences may exist based on the results with the alternate definition of commitment relating to the planned project duration and some positive changes in perceptions of the government's ability to secure different areas in the ANQAR data. Additional data collection on an environment where higher levels of commitment—time commitment in particular—to areas of moderate risk would be necessary to achieve greater clarity on this theory.

Conclusion

Returning to the three puzzles surrounding development in Afghanistan, I theorized that weak information-sharing, incongruity between improvements in development and security, and inconsistent long-term effects could be understood by examining development assistance along the lines of risk and commitment. Development assistance in Afghanistan appears to be predominantly in areas of lower risk, as Chapter 1 revealed. An answer to the puzzles could be that the lack of risk taken in development assistance contributes to the lack of information returns and weak impacts in terms of stabilization in the longer-term, even in instances in which development improved governance or welfare and commitment was persistent. I propose that the fewer number of projects with both risk and commitment might have a different effect because they have a greater chance of activating multiple mechanisms—co-option, information-sharing, opportunity cost, or goods competition.

The empirical analysis in this chapter demonstrates the weakness of the

majority of projects that do not involve risk. Insurgent violence increases following projects without risk even when commitment is present with development assistance that persists over time. However, a limitation is that this analysis cannot prove that development assistance with risk and commitment is effectual.

For projects with risk, it appears that violent insurgent responses to projects in areas of greater risk were rare in the short term or at low levels of commitment. Yet, there is insufficient data to discern the path insurgent responses would follow in areas of moderate risk if commitment were sustained over the longer-term. There are simply not enough projects in non-highway districts to draw a clear conclusion. I have included alternate definitions of risk and commitment as well as additional data from popular perceptions and PRT interviews, which add some evidence that projects in riskier areas may follow a different trajectory over time, but not all of the evidence works in corroboration.

This study introduces a longer-term, quantitative perspective on development in Afghanistan at the micro level. I have not encountered another analysis with a similar aim. The empirics indicate that the absence of risk in the majority of development assistance in Afghanistan may contribute to weakness in countering insurgents. This study also offers a framework and research agenda for the longer-term effects of development that may be advanced in other contexts.

Chapter 3: The Relative Effects of Rural and Urban Development

Increasing urbanization combined with the prevalence of urban terrorism frequently motivates urban development programs in conflict zones. Yet in Afghanistan, the high tempo of deadly urban attacks despite continuing urban development prompts questions about whether urban development in fact contributes to urban stabilization. My theory of risk and commitment suggests that nearby rural development may be more consequential than urban development for reducing urban violence. The annual Asia Foundation Survey, which stratifies respondents by province and rural or urban areas, presents an opportunity to test the relationship between rural and urban development and urban violence. Using development indicators and development observations reported by rural and urban respondents from 2007 through 2017 with multiple measures of urban violence, I find that rural development has a consistent association with less urban violence, while urban development has a consistent association with more urban violence. Practical implications emerge, first, for thinking about the role of development in counterinsurgency and stabilization, and, second, for planning the disposition of security forces and development during such operations. While rural development assistance might be helpful in reducing urban violence, there remains a separate and vital decision over whether the resulting benefits in terms of the added stabilization are worth the resources involved. Undertaking development projects in rural areas is difficult and costly.

Introduction

Since the end of 2014, U.S. military forces in Afghanistan have withdrawn to a footprint limited to major cities and security force assistance (McInnis and Feikert 2017). In concert, U.S. development assistance has shifted away from stabilization programs intended to improve security and extend the reach of the governance in favor of developing institutions that support private-sector economic growth (USAID 2016). President Trump's South Asia strategy was conceived as having military and

civilian investments in Afghanistan determined by conditions-based rather than time-based end states. From an Afghan perspective, this strategy would demonstrate commitment but not necessarily willingness to take risks to bring about improved security or economic conditions for the Afghan people. President Obama's strategy from 2014 to 2016 was much the same in this regard. As of this writing, the US strategy in Afghanistan appears to be in flux, making it relevant to understand the conditions necessary for U.S. efforts to translate into improvements in security.

At present, the limited degree of risk being taken by counterinsurgents means that insurgents and government forces exist in almost separate spheres. Government forces control major population centers, while insurgents dominate most of the rural areas. Afghanistan as a whole remains insecure, with insurgents attacking from their rural strongholds into urban areas. I argue that when counterinsurgents focus governance and development investment only in population centers, insurgents face minimal constraints in conducting attacks within those urban areas.

The empirical results of this chapter suggest that economic development with the attributes of risk and commitment—which translates to development in nearby rural areas that persists over several years—may support stabilization and a reduction of violence downstream within urban areas. By development with risk, I mean development assistance emplaced in areas of greater likelihood of insurgent control, where insurgent control can come from either terrain or a population that favors insurgents. In this context, rural areas are areas of greater risk. Development with commitment implies that counterinsurgents communicate to the population (and presumably to insurgents) their intent to persist in a local area. Development

assistance that shows commitment has repeated or long-lasting projects in local areas. Development with risk and commitment together is proposed as a more potent tool for countering insurgents than development with either risk or commitment in isolation, and the effects may extend downstream beyond the isolated more risky, rural areas. That is, efforts outside of the government's urban zone of control have an association with improvements in those cities when the efforts are of a sufficient duration to demonstrate commitment.

This conclusion is consistent with earlier U.S. experiences in Iraq and Afghanistan. U.S. military commanders found that most attacks in Baghdad from 2004 to 2006 were staged in the suburbs 30 to 50 kilometers away (Institute for the Study of War 2018). Thus, a key part of the surge in Iraq was projecting into those suburbs. Meanwhile in Afghanistan, a limited footprint outside major population centers from 2002 to 2008 was accompanied by the Taliban's resurgence.

In previous chapters, I examined a case study of Ghazni and Zabul Provinces in Afghanistan and found that the development assistance emplaced in locations with relatively less risk on the main highway or in the provincial capitals—which comprised the majority of development projects—was followed by increases in violence despite increasing commitment over time. I examined different indicators that the minority of development assistance in areas away from the highway or the capital might have different effects in the longer-term, but the local effects remained somewhat uncertain. In this chapter, I consider whether the risk and commitment model applies to Afghan cities more broadly and over a longer period of time, and I take a look at the downstream effects of development in rural areas on violence in

adjoining urban locations. This downstream impact may be clearer or more sizable than the upstream one. The focus here is on the relationship between urban development, nearby rural development, and urban violence. Using survey data from the Asia Foundation that captures whether the population perceives that development is progressing or regressing in urban and rural areas in Afghanistan, I estimate the relationship between development in each area on violent attacks in urban areas.

Over the period from 2007 through 2017, I find a consistent association between increases in rural development and reductions in urban violence. Meanwhile, urban development has a consistent association with increases in urban violence. This finding suggests the shortcomings of an urban-only development strategy and implies the potential value of extending beyond the boundaries of population centers as a means by which to secure those urban populations. Practical implications emerge, first, for thinking about the role of development in counterinsurgency and stabilization, and, second, for planning the disposition of security forces and development during such operations. Consequently, this study motivates the future undertaking of a cost-benefit analysis of rural and urban development. While risk and commitment may contribute to whether development can reduce urban violence, a welfare calculation to assess whether the benefits of risk and commitment are worth the attendant costs is a topic for future research.

The Tradeoffs Between Rural and Urban Development

A focus on urban development in an environment like Afghanistan is reasonable. Concentrating development efforts in urban areas seems efficient in terms of maintaining the popular support necessary to sustain a government. The

density of urban populations mean that the government's legitimacy message needs to travel less far. Thus, logistical costs for both security forces and development implementers are fewer, and the popular benefits in terms of ensuring political and social support for the regime for a given amount of development effort are greater. Meanwhile, rural development appears both less efficient logistically and less beneficial popularly. There are fewer people in the countryside, and it is more costly and risky to reach them.

Another layer in the tradeoffs between urban and rural development relates to insurgent capabilities and incentives to conduct attacks. Beall and Fox (2009) describe that rapid urban population growth, unemployment, and a youth bulge in urban areas often create urban security problems in developing countries (184). Specific to Afghanistan, Beall and Fox attribute overemphasis on rural development to rising insecurity in Kabul. Beall and Fox found that many international donors focused on rural development either to repair rural combat damage, address humanitarian concerns, or avoid the coordination challenge associated with urban development (190, 196). Still, arguments that economic opportunities must improve in urban areas to reduce terrorism might lack an appreciation for the tactical dynamics of conducting attacks.

An important tactical question is whether insurgents who conduct attacks in urban areas recruit, reside, meet, and stage in the city or in the countryside, and then in turn how development policy should be spatially arrayed in response to the distribution of those insurgent activities. Does development in urban areas reduce the likelihood of insurgent recruitment of agents who conduct urban attacks? Or instead,

does development in rural areas disrupt or distract rural insurgent principals, thereby reducing the number of urban attacks? If both of these possibilities hold true, what is the balance between the two in terms of taking action?

An answer to these questions for Afghanistan is not immediately clear because previous studies with similar foci have conflicting results. Mousseau (2011) contends that "Islamic terrorists obtain support and recruits from the urban poor" (35) rather than rural poor (45). He uses survey data in 14 Muslim countries in which respondents who approve of Islamic terrorism tend to be those who suffer from urban poverty. On the other side, Blair et. al. (2012) find that in Pakistan the poor are less likely to support militant groups than the middle class, and the urban poor are less likely to support militant groups than the rural poor.

Given the conflict between these two sets of findings, several important questions exist. First, how does the rural-urban dynamic work in Afghanistan? Second, does the rural-urban development and security dynamic differ in a country with an on-going civil war—such as Afghanistan—as compared to an environment in which terrorist attacks are not part of an ongoing civil war?

Theory

My case study of Ghazni and Zabul Provinces theorized about the important interaction of risk and commitment for understanding the effects of development in Afghanistan over a multi-year period and examined the theory with a micro-level case study. Using NATO project data and Department of Defense SIGACTs, I found that even as the number of development projects in areas closer to the highway or the major population centers increased, violence continued to increase following each

project. I thus concluded that commitment without risk did not reduce violence. I suggested that projects in non-highway districts—those with greater risk involved—might have different effects when the districts in which they were emplaced received similar levels of commitment. While the limited number of projects in non-highway areas impacted the conclusions that could be clearly drawn, violence did not rise following early projects in non-highway areas—which might be surprising to some—and there were some indicators that the longer-term impacts of development assistance in the more risky non-highway areas might be different than projects undertaken in less risky areas.

I argue that differences may exist because risk and commitment increase the likelihood that the mechanisms by which development could reduce violence become active. These mechanisms include inducing information-sharing from the populace, raising the opportunity cost of violence, and providing goods competition with insurgents.[12] These mechanisms are more likely to have an effect if development is in closer proximity to the areas in which insurgents stage before conducting attacks—staging areas—than to where they conduct attacks—engagement areas or disruption zones. (Staging areas are areas of moderate risk compared to the lower risk engagement areas where insurgents have less control.) Commitment is necessary because the mechanisms are unlikely to take root immediately. It takes time to

[12] The opportunity cost mechanism suggests that development assistance can increase the opportunity cost of participating in the insurgency and thereby reduce insurgent recruitment because potential insurgents must relinquish better opportunities outside of the insurgency. The goods competition mechanism suggests that development assistance can reduce the relative advantage insurgents maintain with local public goods provision, subsequently increasing the likelihood that insurgents face a defection problem. The information-sharing mechanism suggests that development assistance can lead the population to provide more information that is useful to counterinsurgents.

corroborate information in relatively more risky areas, for development assistance to positively impact the economy enough in those areas for the opportunity costs to be significant, or to provide sufficient goods and services in those areas to be competitive with insurgents. There may also be a co-option mechanism that takes less time to take root in riskier areas but that still requires commitment.[13] With co-option, insurgents might themselves want to allow the development to proceed because it provides benefits for them. Co-option may be able to subdue violence in riskier areas as long as development assistance flows continue, even though insurgents retain their strength.

Applied to a rural-urban dynamic, the risk and commitment theory predicts that progress in rural development will have a greater effect in reducing urban attacks than development in the urban area itself. That is, development with risk and commitment also has consequences downstream. This implication comes from a notion that insurgents who conduct urban attacks project from nearby rural areas. The notion originates from my experience in Afghanistan analyzing insurgents, working with Afghan National Security Forces, and conversing with local Afghans. In rural areas, insurgents can stage and bed-down where the terrain and popular support enhance their security.

When development reaches those rural areas, there are several possible insurgent responses. First, insurgents can maintain their staging locations and bed-down locations and focus their attacks on the rural development projects or the

[13] The co-option mechanism suggests that insurgents allow development assistance to take place because it benefits them directly, reducing attacks in proximity to development projects. For instance, insurgents may become part of the labor force for development projects or gain legitimacy by allowing projects to persist.

counterinsurgent presence that accompanies development, possibly reducing urban violence as they divert resources. Second, insurgents can shift their staging locations and bed-down locations further from cities, making them less efficient in conducting urban attacks. Third, insurgents can co-opt with rural development and participate in or permit the development projects. With rural co-option, insurgents could still conduct urban attacks, or they could cease urban attacks. From the perspective of the analysis here, the focus is less on pinpointing the specific mechanism but instead assessing whether urban attacks decrease when there is rural development in adjoining areas. If so, then rural development may have a role in the urban stabilization that counterinsurgents must achieve. Future work could then analyze the mechanisms by which the reduction in violence occurs.

Data

Independent Variable

Longitudinal data on measures of urban and rural development are available through The Asia Foundation Afghanistan survey, the longest-running nationwide survey in Afghanistan that is typically used to capture changes in national attitudes. The survey has annual, provincial-level survey data from 2006 to 2017 and is representative of the population across all provinces. The survey design is useful for this study because the sample is stratified by province and rural-urban status according to the population estimates of the Afghan Central Statistics Office (CSO).

In the survey, there are two types of questions related to development. One type asks survey respondents about whether the outcomes of development in their

local area are better in a variety of dimensions than in the past, and the second type asks whether respondents observe the presence of different development projects. In this study, I refer to the first type of questions as development indicators questions and the second type of questions as development observation questions. The development indicators questions were not asked in the 2006, 2013, or 2014 surveys. The development observation questions were not all asked every year, but at least some of the types of projects were asked during every survey wave.

Table 1a. Asia Foundation Survey Respondent Summary Statistics

	Total	Percent Rural
Respondents	59,974	72.1
Without Kabul	50,387	82.5
By Year		
2007	4,545	72.0
2008	4,749	72.0
2009	4,606	71.8
2010	4,687	72.5
2011	4,605	71.6
2012	5,370	73.6
2013	5,034	77.2
2014	5,483	74.7
2015	5,688	72.6
2016	8,845	67.0
2017	6,362	71.2
By Region		
Central/Kabul	11,676	30.4
East	3,860	85.4
South East	6,928	94.6
South West	7,795	80.7
West	6,350	78.5
North East	13,066	80.0
North West	10,299	78.5

Notes: 18 provinces with at least one urban and one rural respondent every year from 2007-2017. Regions are Asia Foundation Survey regions, not International Security Assistance Force regions.

Table 1b. Rural and Urban Respondents in Each Province

	Rural			Urban		
	Minimum Respondents/ Year	Maximum Respondents/ Year	Median Respondents/ Year	Minimum Respondents/ Year	Maximum Respondents/ Year	Median Respondents/ Year
Kabul	96	169	159	480	908	707
Parwan	126	352	145	10	30	16
Ghazni	201	390	270	10	24	16
Paktia	119	204	128	5	24	10
Khost	104	210	131	5	12	8
Nangarhar	175	445	304	24	84	48
Badakhshan	192	456	210	6	84	10
Takhar	170	761	192	17	99	30
Baghlan	159	701	176	35	176	40
Kunduz	155	329	180	48	710	56
Balkh	132	742	200	72	287	105
Jawzjan	85	165	105	17	48	25
Sar-i-Pul	120	196	128	8	24	12
Faryab	172	286	198	18	43	24
Herat	142	379	316	59	168	110
Farah	104	203	112	6	18	10
Helmand	200	978	362	10	60	22
Kandahar	179	276	191	83	168	98

Table 1c. Provincial Population Descriptive Statistics, 2007-2017

	Percent Rural (mean)	Percent of National Population (mean)
Kabul	16.6	15.3
Parwan	91.3	2.5
Ghazni	95.2	4.6
Paktia	95.6	2.1
Khost	98.0	2.2
Nangarhar	85.5	5.6
Badakhshan	96.2	3.6
Takhar	87.1	3.7
Baghlan	80.1	3.4
Kunduz	75.4	3.7
Balkh	71.6	4.0
Jawzjan	78.9	2.0
Sar-i-Pul	92.4	2.1
Faryab	88.0	3.7
Herat	72.3	7.0
Farah	92.8	1.9
Helmand	94.2	3.5
Kandahar	65.8	4.5
Median	87.5	3.6
Sum		75.2

Source: Afghanistan Central Statistics Office

Because I am interested in both types of development questions (indicators and observations), in both urban and rural respondents, and in analyzing changes over time, I use data from 2007 through 2017 in 18 provinces for which there is at least one urban and one rural respondent in each province throughout the time period. Table 1a summarizes the number of respondents by year and region, while Table 1b describes the number of respondents in the rural and urban areas of each province. The provinces included spread across all seven of the regions of Afghanistan identified by the Asian Foundation (Table 1a) and represent 75 percent of the total Afghan population (Table 1c).

One of the challenges of using a nationally representative Afghanistan survey for a study with a provincial level unit of analysis and an interest in separating rural and urban respondents is that the number of urban respondents per year in some provinces is quite small, reflecting the reality that most of the provinces are predominantly rural. Seven of the 18 provinces have a median number of urban respondents less than 20 per year.[14] To adjust for this sample size concern, results throughout the analysis are shown with and without population weights. With the population weights, the weight of an observation in the analysis depends on the population of the province; the respondents for each province are effectively "scaled up" to match the population of the province.

Another potential concern associated with the survey data is the effect of the time of year when the survey was conducted. The survey aimed for completion

[14] Despite the small urban sub-samples, The Asia Foundation Survey is notable for the consistency of its findings over time, which gives confidence in the survey's methods, including its random sampling procedures.

within a single month during each year it was conducted. In seven of the eleven years in this study, the survey began in June, and in three of the eleven years, the survey began in July. The most extreme case was in 2016 when the survey began on August 31 and ended on October 16. To examine whether the timing of the survey had an effect, I also show results with yearly fixed effects and with adjusted years that begin on July 1 of the year before the survey and end on June 30 of the year of the survey.

Table 2. Summary Statistics for Development Indicator Question (Weighted)

Compared to two years ago, would you say that situation for your household has gotten better, remained the same or gotten worse with respect to the following?...	Rural Percent Better	Urban Percent Better	Rural-Urban Better Difference
Financial well-being of your household / Financial situation of your household	24.0	28.6	-4.6
Employment opportunities	9.0	11.8	-2.8
Availability of products in the market	15.5	19.9	-4.4
Quality of your food diet	19.0	23.5	-4.5
Physical conditions of your house/dwelling	17.2	22.2	-5.0
Health well-being of your family members	23.1	29.8	-6.6
Electric supply	12.3	24.3	-12.0
Access to schools	28.7	37.8	-9.1
Any indicator	53.8	60.8	-7.0

Note: Shown are the mean of the provincial rural and urban percentages for the 18 provinces in the analysis weighted by the average provincial population.

Table 3. Summary Statistics for Development Observation Question (Weighted)

Speaking of the past 12 months, do you know of, heard of any project or program, implemented with the foreign aid in this area, district, in the following fields?...	Rural Percent Yes	Urban Percent Yes	Rural-Urban Yes Difference
Reconstruction/ building of roads, bridges	42.4	48.7	-6.4
Water supply/ Water supply for drinking	34.9	35.5	-0.6
Water supply for irrigation	19.7	19.5	0.3
Electricity supply	12.8	24.3	-11.5
Healthcare (primary health center, regular visits of doctors, etc.)	29.1	33.3	-4.2
Education (reconstruction/opening of school, more teachers etc.)	33.6	34.1	-0.5
De-mining	21.5	18.7	2.8
Demilitarization / disarmament	17.9	16.7	1.3
Reconstruction/programs in agriculture	21.3	17.1	4.2
Reconstruction/programs in industry	7.9	11.3	-3.4
Building new mosques	24.7	29.8	-5.1
Humanitarian programs – food, medicines, shelter, production materials, etc.	13.6	14.8	-1.2
Observed Any Development	75.5	77.4	-1.9

Note: Shown are the mean of the provincial rural and urban percentages for the 18 provinces in the analysis weighted by the average provincial population.

The development indicator questions ask whether conditions in different areas of development have improved. Respondents can answer that conditions are "better," "the same," or "worse." I focus on both the share of urban and rural respondents in a province who said that any of the development indicators were better as well as on the specific development indicators that urban and rural respondents reported as being better. From 2007 through 2014, the survey asked respondents about changes "compared to two years ago." From 2015 through 2017, the survey asked respondents about changes "compared to one year ago." The exact effects of this change in wording are uncertain, but I expect the effects to be minimal as events in the more recent year are likely to dominate respondents' perspectives even when asked about the two-year horizon. Using yearly fixed effects also helps address potential concerns with the year-to-year changes in survey wording. Table 2 summarizes the development indicator questions and the "any indicator" measure after weighting by provincial population.

The development observation questions ask whether different types of development projects were observed, allowing responses of "yes" or "no." The question had a minor change in wording in 2013 from "speaking of the last 12 months" to "in the past 12 months." This minor change seems unlikely to have any effect. In this study, I focus on the percent of urban and rural respondents in a province who said yes to observing any type of development project as well as to the specific types of development projects they reported observing. Table 3 summarizes the development observation questions as well as the measure of observing any development after weighting by provincial population.

Dependent Variable

Table 4. Events Data Summary Statistics

	UCDP GED	START GTD
Events	8,433	4,996
Without Kabul	8,099	4,380
By Year		
2007	529	127
2008	588	186
2009	766	308
2010	940	316
2011	965	221
2012	618	665
2013	731	458
2014	742	626
2015	738	743
2016	906	695
2017	910	651

Note: Events in the 18 provinces with urban and rural survey data from 2007-2017 with event precision at the district level for GED (precision code <= 3) and attack specificity in a city, town, or village but with the nearest coordinate at the district level for GTD (specificity <=2).

I use two different data sources for the dependent variable of urban violence, and I examine the results for these two data sources separately for robustness. I use the Uppsala Conflict Data Program (UCDP) Global Events Database (GED) for a measure of the number of non-insurgent deaths, and I use the Study of Terrorism and Responses to Terrorism (START) Global Terrorism Database (GTD) for a measure of the number of insurgent attacks. These datasets are useful for longitudinal analysis because they maintain the same basic data collection method throughout the time period. Both sources identify events from media reporting and documents. SIGACT data that relies on troops on the ground to report attacks is less suited for this

longitudinal analysis, particularly for events since 2014 due to U.S. troop level reductions to less than 10,000 across the country. The reduced troop footprint means that the reported attacks will not provide a comprehensive picture of violence across the country. While both datasets tend to be biased against reporting rural violence because of their reliance on media reports, the urban bias works in favor of the urban violence focus of this study. This is the case because the goal is to gauge the relationship between development (whether rural or urban) and urban violence. The expected absence of reporting on violence in rural areas is thus relatively less critical.

Still, the levels of geographic precision that are available for events within the GED and GTD data are important. The most precision across the survey data is the district of the respondents. (GPS coordinates for respondents are only in the survey data for 2016 and 2017.) Thus, before aggregating either GED or GTD data to the province level, I restrict the events and attacks counted to those in the districts of urban respondents. In the GED data, I further limit the data to all events with a precision code indicating it is accurate to the district level (precision code <= 3). In the GED data for Afghanistan, 88 percent of the events have a precision code of three or better. In the GTD data, I keep all events with a specificity indicating that the "event occurred in city/village/town and no lat/long [latitude/longitude] could be found, so coordinates are for [the] centroid of smallest subnational administrative region identified" (specificity code <= 2). In the GTD data for Afghanistan, 55 percent of the events have a specificity code of two or better. Table 4 summarizes the events used as dependent variable measures from each of the datasets.

As is evident, there are tradeoffs between the two datasets and the geographic precision that each allow. The usable GED data have a more substantial percentage of the data with a precision level that aligns with the district level precision of the respondents, but it remains uncertain whether the events in those districts are rural or urban, since most districts include both types of areas. The GTD specificity code that uses city, village, or town coordinates provides more confidence that the events are urban, but less of the whole dataset has this specificity. Given the presence of these tradeoffs, using both datasets as dependent variables in separate analyses adds confidence to the findings that are consistent between the two.

Covariates

The overall approach is to examine the relationship between the measures of progress in development in rural and urban areas on measures of urban violence. In the preferred model, the primary controls come from provincial fixed effects. In additional specifications, I include controls at the provincial level for population, demographics, and the environment with random effects and in OLS regressions. For yearly population estimates, I use the estimates from the Afghan CSO. For the demographic and environmental controls, I use xSub's cross-national data on subnational violence (Zhukov, Davenport, and Kostyuk). The controls from xSub for each province are the percentage of open terrain, the maximum elevation, the number of ethnic groups, the number of languages, the number of built-up areas, the number of petroleum fields, the density of roads, the temperature based on 2014, and the amount of rainfall based on 2014.

Method

The empirical work assesses the relationship between rural and urban development and the two measures of urban violence. Comparing the relative effects of rural and urban development on urban violence requires using a province-year unit of analysis and including measures of rural and urban development in the same equation. Within each province, I sum the number of urban and rural respondents, the number of rural and urban respondents who said a development indicator was "better" for each development indicator, and the number of rural and urban respondents who answered "yes" to each development observation as I collapse the data into a province-year unit of analysis. I then calculate the percentage of rural and urban respondents for each province-year who answered "better" to development indicators or "yes" to development observations. When I collapse the data into the province-year, I weight the survey responses using sampling weights.[15] The sampling weights I use are those given by the Asia Foundation that were stratified by province and rural-urban status (MergeWeight1). I also create variables for whether individual respondents answered that any development indicator question was "better" or that any development observation was "yes."

Equation (1) is the basic estimation equation, with X denoting the various sets of control variables:

$$\text{urbanViolence} = ß_0 + ß_1\text{ruralDev} + ß_2\text{urbanDev} + ßX + \varepsilon \qquad (1)$$

In the initial set of models, the dependent variable, *urbanViolence*, denotes the number of non-insurgent deaths from an event in the GED. I later use the number of

[15] For sampling weights, I use *pweight* in Stata.

attacks from the GTD as an alternative dependent variable for robustness. The variable *ruralDev* is the percentage of rural respondents who indicate that development was "better" or that "yes" development was observed, while *urbanDev* provides the corresponding information for urban respondents.

I first estimate equation (1) using the measure of development on the right-hand side for whether any development indicator was better or any development was observed. This baseline (and streamlined) specification is estimated using provincial level fixed effects and clustered standard errors. I examine results with and without a one-year lag of the dependent variable (non-insurgent deaths) as well as with and without weighting by the average provincial population. To examine the robustness of the approach, I also show regression results that include random effects with and without the provincial environmental controls, and with OLS weighted by the yearly provincial population. After estimating regressions involving the right-hand side variables for whether any indicator was better or any development was observed, I estimate corresponding regression equations for each different type of development indicator and development observation. That is, my initial specification has the broadest measure of development, after which subsequent regressions examine more finely-grained survey results regarding different types of development.

I further estimate models with independent variable lags and models limited to the time periods of 2007 to 2014 and 2015 to 2017. (The end of 2014 marked the end of major combat operations by the United States and International Security Assistance Forces in the Afghan conflict.) For additional robustness, I estimate models with the alternate dependent variable (GTD attacks), yearly fixed effects, and

a model in which the dependent variable violent event counts are on an adjusted July-June definition of a year rather than a Gregorian calendar year to account for when respondents were surveyed. Lastly, I estimate the results without Kabul to discern the extent to which the results are driven by the county's most populous and important city. In all cases, I show the results with and without population weighting using analytic weights (*aweight* in Stata). The analytic weights have the effect of widening the standard errors as a consequence of the small number of urban respondents in some areas.

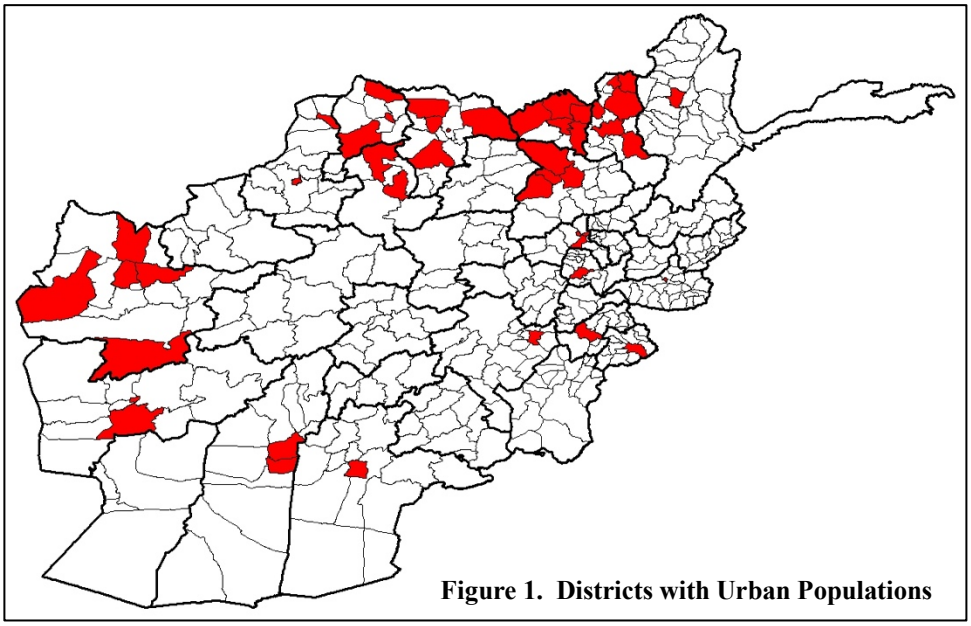

Figure 1. Districts with Urban Populations

Two concerns with this regression model are the possibilities of serial and spatial correlation. There are multiple possible approaches for correcting the standard errors in short, wide panel datasets with serial correlation. As a general approach, I cluster errors at the provincial level, which typically results in errors that are robust to serial correlation. For additional robustness, I also show both Prais-Winsten estimates and Driscoll and Kraay standard errors.

With respect to spatial correlation, concerns are small because it is only the districts with urban areas that comprise the dependent variable, and the distance between urban areas is great for most of the country—there is a sense in which each of the urban areas are akin to islands surrounded by rural territory. (Figure 1 highlights the districts with urban populations to allow visualization.) In addition, the Afghan landscape is vastly different from one in the United States in which municipalities abut each other in a continuous urban area. In Afghanistan, adjoining districts with urban populations have rural areas between their towns. Still, even though the environment reduces concerns about spatial correlation, I further address the issue by limiting the analysis to the areas in the eastern, central, and southern regions to show that the adjoining districts with urban areas in the north and west are not dominating the estimates. Focusing only on the eastern, central, and south regions limits the analysis to regions in which none of the urban areas are adjacent or even close to adjacent to each other. Usefully, this robustness check has a dual effect of also confirming that the estimates are not driven by the relatively less kinetic (that is, relatively more peaceful) and less Pashtun areas in the north and west.

Results

Table 5a. Any Indicator of Better Development and Non-Insurgent Deaths

VARIABLES	(1) Provincial FE and clustered standard errors	(2) Provincial FE and clustered standard errors with DV lag	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial RE and clustered standard errors	(5) Provincial RE and clustered standard errors with provincial enironmental covariates	(6) OLS weighted by yearly provincial population
Rural Percent Any Better	-0.1202	-0.1804	-0.4113	-0.2636	-0.1682	-0.3392
	(0.0961)	(0.1777)	(0.3442)	(0.2356)	(0.1895)	(0.2706)
Urban Percent Any Better	0.1194	0.1617	0.1585	0.1793	0.1425	0.1301
	(0.0990)	(0.1511)	(0.1943)	(0.1900)	(0.1558)	(0.2331)
Lag 1 Non-Insurgent Deaths		0.4003***	0.5980***	0.7830***	0.4713***	0.5895***
		(0.1106)	(0.1898)	(0.0640)	(0.0781)	(0.0969)
Total Population, CSO (thousands)					0.0179***	0.0185***
					(0.0017)	(0.0043)
Province Area (square km)					0.0007**	0.0004
					(0.0003)	(0.0003)
Percent Open Terrain					-72.9137***	-84.7485*
					(20.3019)	(46.5432)
ln (Max Elevation) (meters)					-38.0892***	-40.8960
					(12.1351)	(26.6467)
Number Ethnic Groups					-2.6362	-0.2440
					(2.1216)	(3.3548)
Number Languages					-1.1410	-1.7550
					(1.7421)	(3.1119)
Number Built-up Areas					-1.2928	-1.9066
					(1.9627)	(3.6248)
Number Petroleum Fields					-11.1110**	-12.2881
					(5.0209)	(10.3979)
Road Density (km/square km)					41.7236	-10.8234
					(41.2304)	(113.4824)
Temperature, 2014 (Celsius)					-0.7987**	-0.9192
					(0.4056)	(1.1450)
Rain, 2014 (mm)					4.5535***	4.7712
					(1.4272)	(7.3222)
Constant	36.5080***	25.0065***	35.0764***	13.5719**	342.5335***	387.5098*
	(4.6641)	(3.8558)	(5.6465)	(5.5070)	(93.5896)	(223.6209)
Observations	171	146	146	146	146	146
R-squared	0.0043	0.1331	0.2194			0.6276
Number of Province Clusters	18	18	18	18	18	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Columns 3 and 6 were wegithed with analytic weights according to CSO population estimate. Column 3 weights are by average provincial population estimates to allow provincial fixed effects. Column 6 weights are by yearly provincial population estimates.

Table 5b. Any Observation of Development and Non-Insurgent Deaths

VARIABLES	(1) Provincial FE and clustered standard errors	(2) Provincial FE and clustered standard errors with DV lag	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial RE and clustered standard errors	(5) Provincial RE and clustered standard errors with provincial enironmental covariates	(6) OLS weighted by yearly provincial population
Rural Percent Any Yes	-0.3410	-0.4112	-0.8803*	-0.2815	-0.3809*	-0.7645***
	(0.2158)	(0.2737)	(0.4993)	(0.2508)	(0.2281)	(0.2160)
Urban Percent Any Yes	0.1782**	0.2003**	0.2815*	0.1809	0.3069**	0.4248**
	(0.0824)	(0.0892)	(0.1522)	(0.1362)	(0.1228)	(0.2140)
Lag 1 Non-Insurgent Deaths		0.4125***	0.5618***	0.7971***	0.4608***	0.5612***
		(0.1031)	(0.1218)	(0.0717)	(0.0724)	(0.0931)
Total Population, CSO (thousands)					0.0190***	0.0194***
					(0.0014)	(0.0044)
Province Area (square km)					0.0007***	0.0005
					(0.0003)	(0.0003)
Percent Open Terrain					-81.8451***	-89.2743*
					(18.3569)	(45.6994)
ln (Max Elevation) (meters)					-40.6728***	-43.3233*
					(10.7822)	(25.8540)
Number Ethnic Groups					-3.2278*	-1.3809
					(1.8269)	(3.1809)
Number Languages					-0.9377	-1.6308
					(1.3254)	(2.9375)
Number Built-up Areas					-2.9676	-4.1825
					(1.9225)	(3.5983)
Number Petroleum Fields					-9.0862*	-9.0591
					(4.7748)	(10.1274)
Road Density (km/square km)					69.6987*	41.2333
					(39.9757)	(111.0994)
Temperature, 2014 (Celsius)					-0.9802***	-1.0020
					(0.3535)	(1.1139)
Rain, 2014 (mm)					5.7730***	5.0753
					(1.0694)	(7.2355)
Constant	48.8223**	39.3897**	68.4371**	16.6965	367.5022***	419.7330*
	(18.9056)	(17.6379)	(29.2582)	(15.9638)	(89.5938)	(216.5361)
Observations	171	146	146	146	146	146
R-squared	0.0267	0.1590	0.2821			0.6505
Number of Province Clusters	18	18	18	18	18	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Columns 3 and 6 were wegithed with analytic weights according to CSO population estimate. Column 3 weights are by average provincial population estimates to allow provincial fixed effects. Column 6 weights are by yearly provincial population estimates.

The results are not significant at traditional levels of significance in all specifications, but they are widely consistent, and the differences between the rural and urban development relationships are distinct. When any development indicator (Table 5a) or any development observation (Table 5b) are the independent variables of interest, the point estimates for rural development are consistently negative while the point estimates for urban development are consistently positive. In addition, the point estimates for rural development are always larger in magnitude than those for urban development. For the development indicators in Table 5a, the estimated

coefficients for any improvement in a rural development indicator range from -0.1202 to -0.4113 while the comparable urban development coefficients range from 0.1194 to 0.1793. Similarly, for the development observations in Table 5b, the estimated coefficients for observing any type of rural development range from -0.2815 to -0.8803, and the comparable urban development coefficients range from 0.1782 to 0.4248. That is, the results suggest—though at only moderate levels of statistical significance—that rural development is associated with a reduction in urban violence while urban development is associated with increased violence in urban areas. Further, the relationship is consistent with both the indicators of "better" development in Table 5a and the observations of development in Table 5b. Confidence levels for the negative rural development relationship range from 63 to 79 percent in Table 5a and 74 to 99 percent in Table 5b depending on the specification.

Column (3) in each table with provincial fixed effects, clustered standard errors, one dependent variable lag, and weighting by the average provincial population provides the preferred specification because of its parsimony, the robustness of the standard errors, and accurate reflection of the importance of different population centers. The magnitude of the rural development indicator coefficient of about -0.4 (Table 5a, Column (3)) indicates that an increase in those who said development was better in rural areas by 10 percentage points would correspond to an average decrease of four non-insurgent deaths per province-year. With the mean number of deaths per province-year in those districts with urban respondents being 37, a 10 percentage point increase in better rural development corresponds to a 10 percent decrease in urban non-insurgent deaths. This estimate

from Table 5a is a lower end estimate compared to the estimates in Table 5b for respondents who said they observed development. With a rural development observation coefficient of about -0.9 (Table 5b, Column (3)), a 10 percentage point increase in observing rural development corresponds to a 24 percent decrease in urban non-insurgent deaths.

Table 6a. Development Indicators by Type and Non-Insurgent Deaths

	(1) Rural	(2) Urban
Indicator		
Better Financial Conditions	-0.7175	0.1394
	(0.5652)	(0.1658)
Better Employment	-1.1561	-0.0127
	(0.8197)	(0.1841)
Better Market Conditions	-0.7367	-0.0113
	(0.7575)	(0.1571)
Better Food Quality	-0.5535	-0.0031
	(0.4745)	(0.1232)
Better House Quality	-1.0060	0.0881
	(0.7350)	(0.1344)
Better Family Health	-0.3149	-0.1995
	(0.3713)	(0.2170)
Better Electricity	1.2774**	-0.9221*
	(0.5119)	(0.4694)
Better Schools	-0.4452	-0.1311
	(0.5276)	(0.0952)
Any Better	-0.4113	0.1585
	(0.3442)	(0.1943)

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: Each row in the table is a separate regression. The coefficients for each indicator come from separate regressions with provincial fixed effects, clustered standard errors, a one-year dependent variable lag, and weights by average provincial population as in Table 5a column (3). All of the data were weighted with sampling weights when aggregated to the province-year level and weighted with analytic weights according to the average provincial population in the fixed effects regression.

Table 6b. Observed Development by Type and Non-Insurgent Deaths

	(1) Rural	(2) Urban
Observation		
Observed Bridge or Road Development	-0.6850	0.0975
	(0.5488)	(0.2156)
Observed Water Development	-1.0170	0.1209
	(0.6023)	(0.1571)
Observed Irrigation Development	-0.5774	-0.0284
	(0.5218)	(0.2588)
Observed Electricity Development	-0.2705	-0.2910
	(0.6385)	(0.2607)
Observed Health Care Development	-0.6571	-0.1187
	(0.5354)	(0.1907)
Observed Education Development	-0.4635	0.1402
	(0.2950)	(0.2059)
Observed Demining	-0.8942	0.3570
	(0.5561)	(0.3174)
Observed Demilitarization or Disarmament	-0.7564	0.0292
	(0.8275)	(0.3467)
Observed Agricultural Development	-0.6362**	-0.4445
	(0.2399)	(0.2981)
Observed Industry Development	0.1330	-0.6385
	(0.2827)	(0.3744)
Observed Mosque Development	0.4255	-0.5260
	(0.5750)	(0.4019)
Observed Humanitarian Programs	-0.5422	-0.0971
	(0.6733)	(0.1526)
Observed Any Development	-0.8803*	0.2815*
	(0.4993)	(0.1522)

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: Each row in the table is a separate regression. The coefficients for each indicator come from separate regressions with provincial fixed effects, clustered standard errors, a one-year dependent variable lag, and weights by average provincial population as in Table 5b column (3). All of the data were weighted with sampling weights when aggregated to the province-year level and weighted with analytic weights according to the average provincial population in the fixed effects regression..

These results hold true for most of the individual types of development indicators and observations (Tables 6a and 6b). For development indicators, the largest negative relationships for rural development are for employment and house quality (Table 6a). The estimated coefficient on better rural employment is -1.1561, and the estimated coefficient on better rural house quality is -1.0060. The only development indicator working in the opposite direction is better electricity in rural

areas. The relationship for survey measures regarding electricity is also different from the general trend in Table 6b when progress with electricity was observed. Although the sign on the estimate for observing rural electricity development is negative in Table 6b, the magnitude diminishes to become very weakly negative, and the sign on observing urban electricity remains negative. It appears that electricity development functions differently than other forms of development in Afghanistan.

Most observations of rural development continue to follow the same overall trend with a negative rural coefficient that at least exceeds the magnitude of the urban development coefficient (Table 6b). Rural bridge or road development, water development, irrigation development, health care development, education development, de-mining, and agricultural development all have associations with less urban violence at confidence levels beyond 68 percent. For instance, the estimated coefficient for rural bridge or road development is -0.6850 compared to 0.0975 for urban bridge or road development, and the estimated coefficient for rural water development is -1.0170 compared to 0.1209 for urban water development.

Deviating from the overall relationships between rural development observations and urban violence are measures regarding industry development and mosque development, for which rural observations have weak positive associations with urban violence and urban observations have negative associations with urban violence. Still, the breadth of development observations that follow the trend and exhibit relationships with reductions in urban violence add strength to the argument that the act of rural development in general has an association with reduced urban violence, and that multiple forms may have similar effects. The results broadly

suggest that it would be wise to focus rural development on areas other than electricity, industry, or mosque development.

Table 7a. Any Indicator of Better Development with Lags and Non-Insurgent Deaths

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted	(5) Provincial FE and clustered standard errors with DV lag, unweighted	(6) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-0.3772	-0.2109	-0.0266	-0.1421	-0.1766	-0.0388
	(0.3819)	(0.3403)	(0.3709)	(0.1881)	(0.2233)	(0.2180)
Lag 1 Rural Percent Any Better	0.0084	0.3294	0.3041	-0.1073	0.0158	-0.0409
	(0.2625)	(0.5125)	(0.5128)	(0.1166)	(0.1803)	(0.2464)
Lag 2 Rural Percent Any Better		-0.6906*	-0.5995		-0.3838*	-0.3284*
		(0.3897)	(0.3752)		(0.2123)	(0.1704)
Lag 3 Rural Percent Any Better			0.1682			-0.0055
			(0.2416)			(0.1238)
Urban Percent Any Better	0.1582	-0.0511	-0.2636	0.1558	0.1571	0.0316
	(0.1990)	(0.3154)	(0.3833)	(0.1511)	(0.2032)	(0.2152)
Lag 1 Urban Percent Any Better	-0.0722	-0.1554	-0.1582	0.0276	0.0135	0.0529
	(0.2187)	(0.3099)	(0.3530)	(0.1104)	(0.1449)	(0.2108)
Lag 2 Urban Percent Any Better		0.3749	0.3234		0.2305	0.1716
		(0.2226)	(0.2462)		(0.1417)	(0.1092)
Lag 3 Urban Percent Any Better			-0.2909			0.0030
			(0.3432)			(0.1534)
Lag 1 Non-Insurgent Deaths	0.5899***	0.6091**	0.6547**	0.3992***	0.3723**	0.4002**
	(0.1868)	(0.2343)	(0.2283)	(0.1100)	(0.1515)	(0.1863)
Constant	37.6683***	44.2062***	50.7543***	27.4963***	31.7128***	30.5623***
	(6.3292)	(7.4208)	(15.4978)	(5.0723)	(6.6990)	(10.2373)
Observations	146	135	123	146	135	123
R-squared	0.2219	0.3001	0.3397	0.1380	0.1636	0.1702
Number of Province Clusters	18	18	18	18	18	18

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Each regression has provincial fixed effects, clustered standard errors, and a one-year dependent variable lag. Columns 1-3 were weighted with analytic weights by average provincial population. Columns 4-6 were not weighted by population.

Table 7b. Any Observation of Development with Lags and Non-Insurgent Deaths

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted	(5) Provincial FE and clustered standard errors with DV lag, unweighted	(6) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Yes	-0.7593	-0.6220	-0.6597	-0.2913	-0.2560	-0.1880
	(0.4944)	(0.3662)	(0.5179)	(0.2356)	(0.2380)	(0.2687)
Lag 1 Rural Percent Any Yes	-0.1506	0.0708	0.1331	-0.1737	-0.0897	-0.0348
	(0.1984)	(0.3409)	(0.3458)	(0.2289)	(0.2659)	(0.2445)
Lag 2 Rural Percent Any Yes		-0.6266	-0.4058		-0.3970	-0.3604
		(0.3696)	(0.3367)		(0.2462)	(0.3144)
Lag 3 Rural Percent Any Yes			-0.2523			0.0124
			(0.5786)			(0.2908)
Urban Percent Any Yes	0.3114*	0.3374*	0.2173	0.2195**	0.2949*	0.2465
	(0.1591)	(0.1924)	(0.2090)	(0.0979)	(0.1455)	(0.1521)
Lag 1 Urban Percent Any Yes	-0.0627	-0.0561	-0.0539	-0.0228	-0.0005	-0.0379
	(0.1716)	(0.2058)	(0.2056)	(0.1081)	(0.1380)	(0.1347)
Lag 2 Urban Percent Any Yes		0.2697	0.1962		0.2661*	0.1967*
		(0.1946)	(0.1462)		(0.1450)	(0.0975)
Lag 3 Urban Percent Any Yes			0.0193			0.0495
			(0.1871)			(0.1498)
Lag 1 Non-Insurgent Deaths	0.5397***	0.5453***	0.5857***	0.3933***	0.3564**	0.3760*
	(0.1255)	(0.1691)	(0.1732)	(0.1045)	(0.1408)	(0.1790)
Constant	74.7413*	73.5580*	83.9069	44.8670*	39.5248	32.5045
	(35.6594)	(38.3864)	(60.4966)	(23.0530)	(25.5748)	(33.1623)
Observations	146	135	123	146	135	123
R-squared	0.2855	0.3285	0.3345	0.1647	0.1871	0.1781
Number of Province Clusters	18	18	18	18	18	18

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Each regression has provincial fixed effects, clustered standard errors, and a one-year dependent variable lag. Columns 1-3 were weighted with analytic weights by average provincial population. Columns 4-6 were not weighted by population.

Examining models with lags of the independent variables, there is some evidence that the relationship between rural development and violence spans multiple years (Tables 7a and 7b). Rural development two years prior has the relationship of the largest magnitude with reductions of violence. The estimated coefficient of a two-year lag for any better rural indicator is -0.5995 in column (3) of Table 7a, and the estimated coefficient of a two-year lag for any rural development observation is -0.4048 in column (3) of Table 7b. Meanwhile, urban development two years prior has a positive relationship with violence, with estimated coefficients of 0.3234 in column (3) of Table 7a and 0.1962 in column (3) Table 7b. The lagged models offer a piece of evidence against the argument that the negative association between rural development and violence is due to a selection bias. The selection bias would be that

rural development occurs only in areas where urban violence is already decreasing. The results in Tables 7a and 7b run against this argument, however. Instead, they suggest that rural development precedes reductions in violence.

Table 8a. Relationship Between Development and Non-Insurgent Deaths from 2007-2014 Only

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-0.2002	-0.0982		
	(0.3005)	(0.2155)		
Urban Percent Any Better	0.1232	0.1464		
	(0.2879)	(0.2166)		
Rural Percent Any Yes			-0.7444*	-0.3756
			(0.3828)	(0.2537)
Urban Percent Any Yes			0.4489*	0.2546
			(0.2483)	(0.1607)
Lag 1 Non-Insurgent Deaths	0.1105	0.2043*	0.1530	0.2347*
	(0.1277)	(0.1024)	(0.1270)	(0.1181)
Constant	45.3136***	28.8400***	63.2797*	39.4880**
	(13.0309)	(6.5406)	(31.5897)	(17.8585)
Observations	98	98	98	98
R-squared	0.0141	0.0548	0.0906	0.0765
Number of Province Clusters	17	17	17	17

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Each regression has provincial fixed effects, clustered standard errors, and a one-year dependent variable lag. Columns 1 and 3 were weighted with analytic weights by average provincial population. Columns 2 and 4 were not weighted by population.

Table 8b. Relationship Between Development and Non-Insurgent Deaths from 2015-2017 Only

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-1.2054	-0.4095		
	(0.9881)	(0.7817)		
Urban Percent Any Better	-0.8737	-0.5732*		
	(0.5242)	(0.3188)		
Rural Percent Any Yes			0.3595	0.2872
			(0.6685)	(0.5612)
Urban Percent Any Yes			-0.1970	-0.1870
			(0.5058)	(0.3198)
Lag 1 Non-Insurgent Deaths	0.8077	0.3031	0.7676	0.0851
	(0.4669)	(0.4086)	(0.7376)	(0.3905)
Constant	138.0463***	89.5136**	20.0892	35.1612
	(47.0477)	(36.6702)	(42.0193)	(22.6320)
Observations	32	32	32	32
R-squared	0.5695	0.2100	0.3005	0.0205
Number of Province Clusters	17	17	17	17

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Each regression has provincial fixed effects, clustered standard errors, and a one-year dependent variable lag. Columns 1 and 3 were weighted with analytic weights by average provincial population. Columns 2 and 4 were not weighted by population.

An important question is whether rural development only reduces violence when security forces are also active. A way to examine changes related to the number of security forces in rural areas is to compare the magnitude of the estimated coefficients that measure the relationship between indicators of development and violence during the separate periods when coalition forces were deployed to rural areas and when coalition forces were limited to urban areas. By the end of 2014, International Security Assistance Forces in Afghanistan were reduced to just over 13,000, which limited their presence to major cities (ISAF, December 1, 2014).

The results in Table 8b weakly suggest that the relationship between development and violence persists even with a reduced presence of security forces in rural areas. Columns (1) and (2) indicate that the same relationship between better rural development and less urban violence persists and may be even larger. In

column (1), for instance, the estimated coefficient for any better rural development indicator is -1.2054. However, columns (1) and (2) also show that the relationship between urban development and urban violence might change with less rural security forces. For instance, the estimated coefficient in column (1) for any better urban development is -0.8737. Columns (3) and (4) for observations of rural and urban development have point estimates that also seem to diverge from the trend, but wide standard errors give them very weak significance. Overall, Table 8b provides some evidence that the overall relationship between rural development and urban violence remains even after the pullback of coalition forces away from rural areas, but the limited number of observations from the 2015-2017 time period makes for wide errors and low levels of statistical confidence. We can say more confidently that rural development did have an association with less urban violence when security forces were present as a complement to development efforts from 2007 to 2014—the period when coalition forces had a greater presence in rural areas. This relationship is consistent with that in Berman, Shapiro, and Felter (2011a) in which the wider presence of security forces during the troop surge in Iraq was found to enhance the violence-reducing effects of development.

Table 9. Relationship Between Development and Attacks in GTD

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-0.3103	-0.1786*		
	(0.1983)	(0.1004)		
Urban Percent Any Better	0.0214	0.0413		
	(0.1229)	(0.0761)		
Rural Percent Any Yes			-0.7045***	-0.4506**
			(0.2195)	(0.1856)
Urban Percent Any Yes			-0.0398	0.0063
			(0.0857)	(0.0752)
Lag 1 Non-Insurgent Deaths	0.2385*	0.0978	0.1926**	0.1003
	(0.1318)	(0.1038)	(0.0780)	(0.0934)
Constant	40.8765***	33.7680***	83.1060***	59.4062***
	(4.0173)	(2.9957)	(13.5224)	(9.4234)
Observations	153	153	153	153
R-squared	0.2164	0.0627	0.3902	0.1689
Number of Province Clusters	18	18	18	18

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Each regression has provincial fixed effects, clustered standard errors, and a one-year dependent variable lag. Columns 1 and 3 were weighted with analytic weights by average provincial population. Columns 2 and 4 were not weighted by population.

Table 10. Relationship Between Development and and Non-Insurgent Deaths with Yearly Fixed Effects

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-0.9985**	-0.7371		
	(0.4454)	(0.4894)		
Urban Percent Any Better	-0.2767	-0.0556		
	(0.2777)	(0.1341)		
Rural Percent Any Yes			-1.3230**	-0.8341**
			(0.5155)	(0.3433)
Urban Percent Any Yes			0.0472	0.1367
			(0.2054)	(0.1049)
Lag 1 Non-Insurgent Deaths	0.5057***	0.3578***	0.5493***	0.3776***
	(0.1302)	(0.1123)	(0.1382)	(0.1146)
Yearly Fixed Effects	Yes	Yes	Yes	Yes
Constant	90.8621***	64.6421**	117.3912***	73.0707**
	(28.1271)	(28.8042)	(40.4571)	(25.5506)
Observations	146	146	146	146
R-squared	0.3768	0.2360	0.3971	0.2500
Number of Province Clusters	18	18	18	18

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Each regression has provincial fixed effects, clustered standard errors, and a one-year dependent variable lag. Columns 1 and 3 were weighted with analytic weights by average provincial population. Columns 2 and 4 were not weighted by population.

Table 11. Relationship Between Development and Non-Insurgent Deaths for Adjusted Years

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	0.0601	-0.0138		
	(0.1588)	(0.0958)		
Urban Percent Any Better	-0.0701	0.0889		
	(0.2119)	(0.0978)		
Rural Percent Any Yes			-0.5931	-0.1975
			(0.3589)	(0.2311)
Urban Percent Any Yes			0.1669	0.1040
			(0.1419)	(0.0901)
Lag 1 Non-Insurgent Deaths	0.5124*	0.2823	0.5205**	0.2907
	(0.2554)	(0.1644)	(0.2443)	(0.1685)
Constant	27.8816***	25.1328***	56.8469**	35.5381*
	(9.1665)	(7.4959)	(20.3900)	(16.9053)
Observations	142	142	142	142
R-squared	0.2062	0.0841	0.2615	0.0832
Number of Province Clusters	18	18	18	18

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Columns 1 and 3 were regressed with analytic weights by average provincial populatin. Columns 2 and 4 were not weighted by population. Adjusted years for the dependent variable run from July 1 of the year prior to the survey to June 30 of the year of the survey.

Table 12. Without Kabul, Relationship Between Development and Non-Insurgent Deaths

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-0.1427	-0.1158		
	(0.1789)	(0.1541)		
Urban Percent Any Better	0.2142	0.1872		
	(0.1747)	(0.1449)		
Rural Percent Any Yes			-0.1665	-0.1749
			(0.1993)	(0.1885)
Urban Percent Any Yes			0.2787**	0.2064**
			(0.1309)	(0.0880)
Lag 1 Non-Insurgent Deaths	0.3033***	0.2919***	0.3148***	0.3079***
	(0.0766)	(0.0739)	(0.0693)	(0.0744)
Constant	22.0059***	21.1222***	17.4440	22.3005
	(6.1177)	(4.8421)	(16.0120)	(13.8236)
Observations	136	136	136	136
R-squared	0.1230	0.1150	0.1256	0.1124
Number of Province Clusters	17	17	17	17

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Columns 1 and 3 were regressed with analytic weights by average provincial population. Columns 2 and 4 were not weighted by population.

Several additional robustness checks include using attacks in the GTD as a secondary dependent variable to measure violence, estimating the relationship with yearly fixed effects, estimating the relationship with an adjusted July-June year for the dependent variable, and estimating the relationship without Kabul. Using the GTD data offers a secondary dependent variable that emphasizes counting the number of attacks rather than the number of deaths. The relationships in these alternative regression specifications are broadly comparable in substance to when the GED data was used (Table 9). In column (1) of Table 9, rural development has a relatively large negative relationship with the number of urban attacks with an estimated coefficient of -0.3103, and urban development has an estimated relationship very close to zero with an estimate of 0.0214 and a standard error that exceeds the magnitude of the coefficient. In addition, the rural relationships to GTD attacks in Table 9 have slightly higher levels of statistical significance, with the weakest in column (1) at 87 percent, compared to the rural relationship with GED non-insurgent deaths as the dependent variable in Table 5a and Table 5b in which the lowest confidence level was 63 percent.

Additionally, the results are robust to adding yearly fixed effects (Table 10), which effectively control for changes in the environment by year as well as for the few changes to survey questions. Including yearly fixed effects actually increases both the magnitude of the estimated coefficients and the level of statistical significance of the estimates for both rural development indicators and development observations compared to Table 5a and 5b. The estimated coefficient of -0.9985 for any rural development indicator in column (1) and the estimated coefficient of

-1.3230 for any rural development observation in column (3) are both significant at the 95 percent confidence level.

Such strong effects are not as evident when adjusting to a June-July year to account for the potential difference in the period that survey respondents may have been recalling when they were interviewed (Table 11). For the development indicators (Columns (1) and (2)), the relationship goes down to near zero for both rural and urban development. The estimated coefficients in columns (1) and (2) for rural and urban development indicators are less than the standard errors. For development observations (Columns (3) and (4)), however, the results are consistent in magnitude and direction with those in the rest of the analysis. The estimated coefficient for a rural development observation of -0.5931 and the estimated coefficient for an urban development observation of 0.1669 in column (3) are consistent in magnitude and direction with the overall results. It could be that assessing whether development improved over a period was less concrete than whether development was observed at all, making the timing associated with the recollections more consequential. Alternatively, or perhaps additionally, the results may be more messy with a July-June year because the time period spans two fighting seasons, and there may be variation in the times of fighting seasons due to differences such as the timing of the rainy season.

A final attribute of the results that becomes apparent from the robustness checks is that the results are significantly influenced by Kabul. Without Kabul, the magnutidue of the rural estimates maintain the same signs, but the levels of confidence in the results diminish with larger standard errors (Table 12). While it

makes sense to report the primary results with Kabul because of its importance in Afghanistan, Table 12 reveals that the trends are less clear in some of the smaller urban areas. The importance of Kabul in the results is consistent with (indeed, explains) the differences in some of the preceding tables with and without population weights. Including population weights, which gives Kabul greater importance as the largest city, increases the magnitude of the estimates.

Uncertainties and Limitations

One potential question with the results relates to the precision of both the GED and GTD data. Neither dataset includes every attack nor does the data precision allow complete confidence that only urban violence is measured. Still, these data are the best available for a longitudinal study, and the consistency between the results using the two different sources of information on violence provides some confidence in the findings.

Table 13. Relationship between Development Indicators and Non-Insurgent Deaths with Adjustments for Serial Correlation

VARIABLES	(1) Prais-Winsten Panel-corrected Standard Errors with AR1 Structure	(2) Prais-Winsten Panel-corrected Standard Errors with Panel-Specific AR1 Structure	(3) Driscoll and Kraay Standard Errors with Max Two Lags	(4) Driscoll and Kraay Standard Errors with Max Ten Lags
Rural Percent Any Better	-0.3447	-0.4340*	-0.1495	-0.1495
	(0.2533)	(0.2410)	(0.2659)	(0.1436)
Urban Percent Any Better	0.1335	0.2205	0.0746	0.0746
	(0.2275)	(0.2111)	(0.2059)	(0.1056)
Lag 1 Non-Insurgent Deaths	0.5665***	0.5675***		
	(0.1875)	(0.1860)		
Total Population, CSO (thousands)	0.0192**	0.0196**	0.0338***	0.0338***
	(0.0076)	(0.0079)	(0.0098)	(0.0069)
Province Area (square km)	0.0004	0.0004	0.0012***	0.0012***
	(0.0003)	(0.0003)	(0.0004)	(0.0003)
Percent Open Terrain	-87.6813**	-99.2768**	-152.1736***	-152.1736***
	(35.4531)	(40.2534)	(36.9794)	(19.8341)
ln (Max Elevation) (meters)	-42.1920**	-44.2151**	-70.9859***	-70.9859***
	(19.1860)	(18.8596)	(13.3599)	(9.0159)
Number Ethnic Groups	-0.3126	-0.2335	-3.6243	-3.6243
	(2.1792)	(2.2089)	(2.8822)	(2.3931)
Number Languages	-1.8791	-1.2590	-3.3367	-3.3367*
	(2.1828)	(2.3120)	(2.4666)	(1.6709)
Number Built-up Areas	-1.9949	-1.4293	-4.0969	-4.0969**
	(2.8803)	(2.1996)	(2.4333)	(1.7752)
Number Petroleum Fields	-12.6857*	-14.4405**	-21.1437***	-21.1437***
	(7.3869)	(6.4284)	(6.1327)	(3.6940)
Road Density (km/square km)	-8.9428	-10.9367	71.0766*	71.0766***
	(70.6297)	(65.2037)	(40.3251)	(19.0960)
Temperature, 2014 (Celsius)	-0.9278	-0.9275*	-1.1909**	-1.1909***
	(0.5683)	(0.5620)	(0.4148)	(0.1778)
Rain, 2014 (mm)	4.9876*	6.4210*	9.8868***	9.8868***
	(2.5959)	(3.4816)	(1.7772)	(1.1455)
Constant	399.6529**	415.0140***	653.1505***	653.1505***
	(161.1256)	(158.4130)	(120.7006)	(79.7287)
Observations	146	146	171	171
R-squared	0.6046	0.5650	0.6355	0.6355
Number of Province Clusters/Groups	18	18	18	18

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Notes: All of the data were weighed with sampling weights when aggregated to the province-year level and were regressed with analytic weights by the provincial population in a given year.

Another potential question relates to serial correlation. The Wooldridge test for autocorrelation finds that there is first-order autocorrelation at the one percent confidence level, which is not surprising based on the significance of the independent variable lags in Tables 7a and 7b. While the method throughout the analysis of clustering standard errors is typically seen as robust to serial correlation, several other procedures are also suggested in the literature for adjusting the standard errors in

short, wide panel data with autocorrelation. In Table 13, I show multiple methods for robustness. Each has tradeoffs. First, I show Prais-Winsten estimates using the Stata command *xtpsce*. A limitation of the Prais-Winsten estimates is that they only account for an AR1 lag structure. From Table 7a, AR2 and AR3 lags may also be significant. To try to get at a longer lag structure, I use Stata command *xtscc*, which estimates Driscoll and Kraay (1998) standard errors for panel regressions with cross-sectional dependence. With *xtscc*, I can set the maximum number of lags up to 10. I find that with either two or 10 lags, the strength of the statistical significance decreases, but the relative relationships between rural and urban development remain consistent.

Table 14. Without Northeast, Northwest, and West, Relationship Between Development and Non-Insurgent Deaths

VARIABLES	(1) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(2) Provincial FE and clustered standard errors with DV lag, unweighted	(3) Provincial FE and clustered standard errors with DV lag, weighted by average provincial population	(4) Provincial FE and clustered standard errors with DV lag, unweighted
Rural Percent Any Better	-0.9146	-0.4914		
	(0.6864)	(0.3967)		
Urban Percent Any Better	0.3877	0.3602		
	(0.4140)	(0.3140)		
Rural Percent Any Yes			-1.5013*	-0.9443
			(0.6455)	(0.5514)
Urban Percent Any Yes			0.5312	0.3765
			(0.4196)	(0.2762)
Lag 1 Non-Insurgent Deaths	0.7613***	0.5291**	0.6590***	0.5510***
	(0.2026)	(0.1659)	(0.0851)	(0.1175)
Constant	44.2752***	32.1356***	99.3766**	70.0506
	(9.8194)	(6.9480)	(36.9018)	(38.2683)
Observations	69	69	69	69
R-squared	0.3202	0.2015	0.4073	0.2628
Number of Province Clusters	8	8	8	8

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All of the data were weighted with sampling weights when aggregated to the province-year level. Columns 1 and 3 were regressed with analytic weights by average provincial population. Columns 2 and 4 were not weighted by population.

In addition to serial correlation, there remains potential (even if minor) concern with spatial effects. Adding a robustness check that removes the northeast, northwest, and west provinces from the analysis creates a sub-set of the data in which none of the urban areas are adjacent, or close to adjacent, to each other, removing the potential for spatial correlation. The results from this sub-set of the data are highly consistent with the overall results (Table 14). These results also indicate that the findings about the role of rural development are not driven by the less kinetic, less Pashtun provinces in the north. Rural development correlates to reductions in urban violence, even in the provinces that have been the most difficult for coalition forces to secure.

A final set of questions pertain to causality. For one, these models only allow estimation of an association and do not identify causation from rural and urban development to urban violence. In principle, it is possible that development efforts respond to violence. Secondarily, the exact mechanism by which rural development might have a greater effect on insurgents than urban development remains uncertain. Opportunity cost, goods competition, and information-sharing, or co-option are all possible mechanisms. The design of this study does not allow a causal claim. Rather, it suggests that a different way of thinking about the relationship between development and stabilization may be necessary.

Implications for the Role of Development during Counterinsurgency and Stabilization

Development in counterinsurgency and stabilization theory is most often expected to legitimize governance. From there, theorists expect subsequent effects on security. This construct has motivated a focus on the security effects of development

in the same area in which the development is carried out. However, the evidence here suggests another construct that may be useful for counterinsurgents. The link from development through governance to security in a given area may be weak in countries like Afghanistan with harsh terrain and weak security institutions, as the positive correlation between urban development and urban violence suggests. Instead, the impacts of development on violence may reflect the way insurgent networks function in practice. Development in the rural areas may have stabilizing downstream effects on urban areas because it is in rural areas where insurgents have support zones in Afghanistan.

This finding is consistent with recent reporting that the Taliban has been increasingly co-opting with rather than resisting development in rural Afghanistan. Johnson (2018) writes, "As U.S. and Afghan forces pull back to protect major cities—as part of Washington's new strategy—the Taliban are filling the vacuum." She continues later, "the Taliban leadership realized that instead of attacking government schools and aid projects, it could gain much more by co-opting them. In doing so, it could take credit for providing services and win over the local population." That the Taliban chooses to co-opt with development suggests that the ability to control flows of development can be an asymmetric advantage for counterinsurgents. However, such development may have more of a coalition-building than a legitimizing character, and such coalitions cannot be built when development does not reach out into the areas insurgents reside.

This contention has roots in Lindsay and Petersen's 2011 study of counterinsurgency in Iraq. Lindsay and Petersen suggested that counterinsurgency

tends to emphasize resources spent on neutrals and weak, unorganized government or insurgent supporters but that more direct engagement with local insurgent supporters—what they call community mobilization—can have higher payoffs for stabilization (25). In the case of Afghanistan, neutrals or weak supporters of either side are likely more prevalent in urban areas, while local insurgents are likely more prevalent in rural areas. Hence, the Lindsay and Petersen framework connects with the empirically higher payoffs from rural development this analysis finds in Afghanistan.

While it is true that insurgencies in places other than Afghanistan may not always have rural roots, there is potentially a broader implication of the analysis here. In Afghanistan, rural development may disrupt urban attacks because insurgents commonly reside and stage in rural areas when conducting urban attacks. Thus to make the application more general, this analysis suggests, first, that it may be relevant to devise and analyze development relative to the way insurgent networks function, and, second, that development may be more potent for countering insurgents in areas where insurgents stage than in the areas they attack.

Implications for Security Force and Development Calculations

The suggestion that development outside cities may be significant for security inside cities has a direct connection to calculations of security force and development requirements. Traditionally, calculations of security force requirements during counterinsurgency have been based only on population counts. McGrath (2006) notes that geography can be significant for troop requirements, but he makes geographical variation only an exceptional, not a principal part of his study (2). Instead, emphasis

on ratios of security forces to population counts has been prevalent based on the logic of securing the population. Quinlivan (1995) described that strong insurgencies required force ratios around 20 security forces per 1,000 population. Later, McGrath (2006) offered a smaller estimate of 13.21 per 1,000 population.

Even more directly connected to the urban focus of this study has been a special emphasis on urban policing requirements since McGrath (2006). McGrath found that 4.1 per 1,000 was the minimum ratio necessary for policing urban areas, even when there was not insurgency. Later, Goode (2009) offered an estimate of 2.8 per 1,000 as the minimum for urban policing (55). Each of these estimates suggest what it takes to physically secure urban populations with security forces.

These conceptions may be missing the potential security-enhancing effect of development outside cities. If development outside cities is significant for the security of cities, it may be reasonable to connect security force requirements to what is necessary to enable development in those areas—both from a security and a logistical perspective. Past counterinsurgent security force footprints in Afghanistan have been either limited to urban areas (2002 to 2008 and 2015 to 2017) or reached out to most districts (2010 to 2012). There might be a reasonable middle ground that makes it hard for insurgents to conduct attacks in population centers. Security forces and development could be concentrated in areas that immediately surround population centers, say 30 kilometers around each. If this footprint were sustained, the characteristics of risk and commitment could be attained.

This approach would aim to reduce the ability of insurgents to carry out urban violence, an arguably essential capability for Afghan insurgents. Rural attacks have

minimal value to insurgents; they are hard to exploit in the information war. Urban attacks garner media attention and create disproportionate perceptions of insurgent strength. If insurgents cannot conduct urban attacks, they might be reduced to being seen as political parties or irrelevant militias.

While this approach embraces a sovereignty gap, others including Ghani and Lockhart (2009) always expected a sovereignty gap in Afghanistan, and the sovereignty gap this approach accepts would be smaller than the existing urban-only footprint. The empirics from my analysis suggest that the urban-only emphasis for security forces and development may not contribute to security improvements for urban populations. Recent reporting gathers that insurgent capabilities to conduct urban attacks are robust and that the conflict is at a "stalemate" (Seligman 2018). Rural development around cities might allow enough coalition-building to reduce urban attacks and break the stalemate.

Conclusion

The indication that rural support may be a relevant contributor to urban attacks in Afghanistan is more consistent with Blair et. al. (2013) than Mousseau (2011), and it implies that the urban-centric institutional development focus characterizing current U.S. development efforts may not well-suited to reducing violence and having stabilizing effects. Institutional investments in urban areas could have great effects in the very long-term (say over a horizon of 10-20 years), but the absence of rural development in the interim is likely to mean that large urban attacks will continue with little impediment. The implication is that development work could have different effects by taking risk and going outside of urban areas.

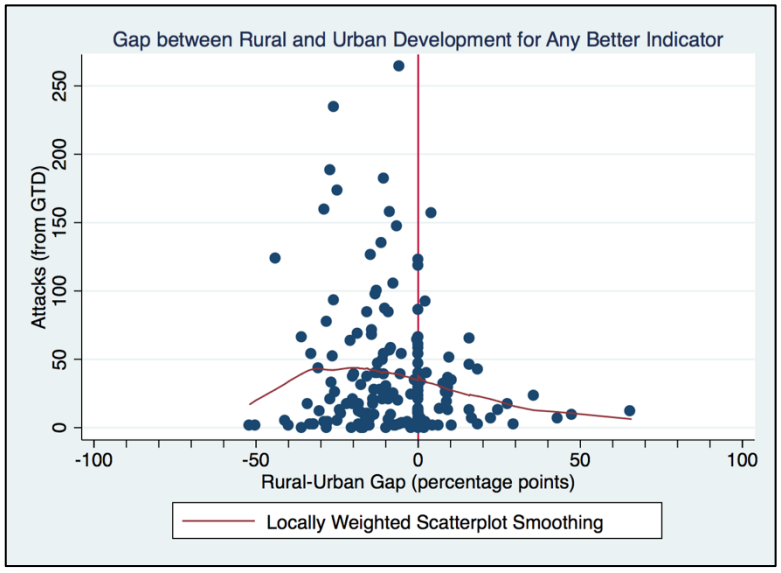

Figure 2a. Gap between Rural and Urban Development for Any Better Indicator

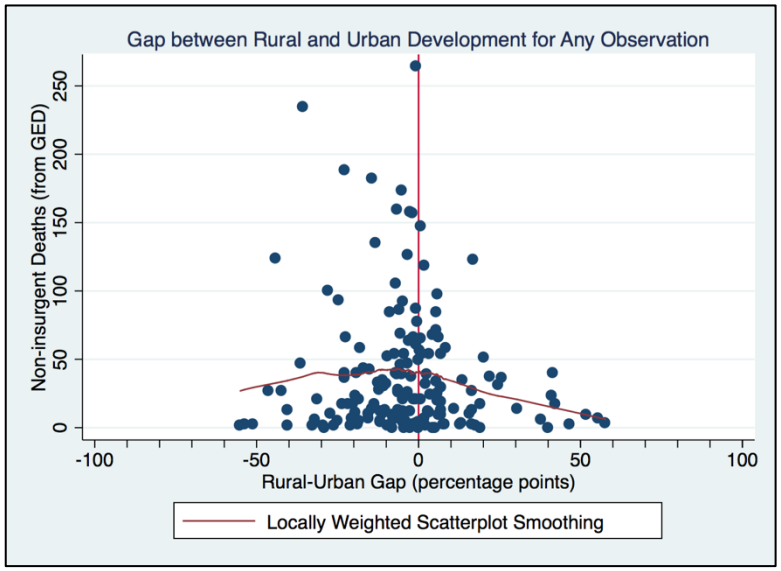

Figure 2b. Gap between Rural and Urban Development for Any Development Observation

This analysis should not be taken to mean that urban development is not necessary, or that rural development is cheap or easy. The extent of the difference between rural and urban development seems important. To examine the difference, I create gap variables for the differences between the rural and urban percentages who said that development indicators were better or that development was observed.

Figures 2a and 2b show a consistent relationship between the gap for either development indicators or development observations and non-insurgent deaths when using locally weighted scatterplot smoothing to capture non-linearity. The figures show that if rural development trails urban development by more than 30 percentage points (a gap that is more negative than -30), there is an association with increasing non-insurgent deaths. Meanwhile, when the gap is between about -30 and -10 percentage points, there is almost no change in the level of non-insurgent deaths. The relationship between increasing rural development and decreasing violence exists whenever the rural-urban gap is on the positive side of -10 percentage points. Hence, urban development may have weak effects on urban security when it exceeds rural development by greater than 10 percentage points, or adverse effects on urban security when it exceeds rural development by greater than 30 percentage points.

Several factors may contribute to the weak or adverse effects when urban development dominates. First, insurgents always have an incentive to attack urban areas and urban-dominant development does not pose a constraint, so insurgents can escalate violence freely. Second, more urban development might make urban areas a more attractive target for insurgents to discredit counterinsurgents by conducting and exploiting urban attacks. Third, urban-dominant development might expand the gaps in goods and services between the rural areas where insurgents reside and the urban areas, creating larger grievances and increasing rural support for insurgents. Each of these three factors may contribute in part.

Most importantly, the prominence of rural development's relationship with decreasing violence compared to urban development's opposite relationship

highlights an important cost-benefit calculation. While the calculations here do not allow a complete cost-benefit analysis, they do illuminate such analysis conceptually. Urban development might increase welfare for more people and is more cost efficient, but in Afghanistan, it does appear to reduce violence. Rural development might reduce violence, but it has smaller marginal benefits and greater logistical costs. Rural development may also have greater physical costs in the form of coalition force casualties.

That an advantageous outcome in a conflict environment cannot come without risk and commitment should not be surprising. Schelling (1966) valued the "art of commitment" and "manipulation of risk" in a very different security context—that of state-to-state coercion and compellence. Hence, risk and commitment have pervasive importance for achieving security goals across the security spectrum. It appears relevant to think about development during counterinsurgency and stabilization with these sources of influence in mind as well. Yet because risk and commitment are both costly, difficult decisions ensue. There remain no shortcuts or cheap victories.

Bibliography

Preface

Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." Journal of Political Economy 76: 169-217.

Berman, Eli, Jacob N. Shapiro, and Joseph H. Felter. 2011a. "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." Journal of Political Economy 119(4): 766-819.

Berman, Eli and David D. Laitin. 2008. "Religion, Terrorism, and Public Goods: Testing the Club Model," Journal of Public Economics 92: 1942-1967.

Blattman, Christopher and Jeannie Annan. June 2015. "Can Employment Reduce Lawlessness and Rebellion?" National Bureau of Economic Research.

FM 2-22.3. 2006. Human Intelligence Collector Operations.

Chapter 1

Academic Works

Allison, Graham T., and Philip Zelikow. 1999. Essence of Decision: Explaining the Cuban Missile Crisis. 2nd edition. New York: Longman.

Greentree, Todd. 2013. "Bureaucracy Does Its Thing: US Performance and the Institutional Dimension of Strategy in Afghanistan." The Journal of Strategic Studies, 36(3): 325-356.

Halperin, Morton H., Priscilla Clapp, and Arnold Kanter. 1974. Bureaucratic Politics and Foreign Policy. Washington: Brookings Institution.

Komer, R.W. 1972. "Bureaucracy Does Its Thing: Institutional Constraints on U.S.-GVN Performance in Vietnam." RAND Corporation.

Maley, William. Autumn 2007. "Provincial Reconstruction Teams in Afghanistan – how they arrived and where they are going." NATO Review. https://www.nato.int/docu/review/2007/issue3/english/art2.html.

Malkasian, Carter and Gerald Meyerle. 2009. "Provincial Reconstruction Teams: How do we know they work?" Strategic Studies Institute.

North, Douglass C. 1990. Institutions, Institutional Change, and Economic Performance: The Political Economy of Institutions and Decisions. Cambridge: Cambridge University Press.

Steinbruner, John. 2002. The Cybernetic Theory of Decision: New Dimensions of Political Analysis. Princeton University Press.

Warwick, Donald P. 1975. A Theory of Public Bureaucracy. Cambridge: Harvard University Press.

Doctrine, Policy, and Policy Analysis

FM 3-24/MCWP 3-33.5. 2014. Insurgencies and Countering Insurgencies.

ADRP 3-07. 2012. Stability.

Stabilization Assistance Review. 2018. "A Framework for Maximizing the Effectiveness of U.S. Government Efforts to Stabilize Conflict-Affected Areas." https://www.state.gov/documents/organization/283589.pdf

"Stabilization: Lessons from the U.S. Experience in Afghanistan." 2018. Special Inspector General for Afghanistan Reconstruction. https://www.sigar.mil/interactive-reports/stabilization/index.html

Social Media Sources

"Provincial Reconstruction Team – Ghazni." https://www.facebook.com/Provincial-Reconstruction-Team-Ghazni-81575264994/

"PRT Ghazni." https://prtghazni.blogspot.com

"Provincial Reconstruction Team Zabul." https://www.facebook.com/Provincial-Reconstruction-Team-Zabul-138891882816799/

News Articles and Press Releases

"6 Americans, doctor killed in Afghan attacks." Associated Press. April 7, 2013.

"Taleban taking advantage of Afghan army's 'lack of coordination' – TV." BBC Monitoring South Asia. August 30, 2013.

"PRT Ghazni closes." DVIDS. November 27, 2013. https://www.dvidshub.net/video/318521/prt-ghazni-closes

"Romanians say farewell to Zabul." DVIDS. December 5, 2011. https://www.dvidshub.net/news/81045/romanians-say-farewell-zabul

Kazem, Halima. "Aid worker's murder tarnishes Afghan province: A death and a bombing prompted UN cutbacks this week in Ghazni and in provinces along the Pakistan border." The Christian Science Monitor. November 19, 2003.

"US forces set up new civil-military team in southwestern Afghanistan." Agence France Presse. March 4, 2004.

Gall, Carlotta, Muhib Habbibi, and Ruhullah Khapalwak. "A Slice of Afghanistan Secured Well by Afghans." The New York Times. May 24, 2011.

"PRT Ghazni starts District Stability Team in Deh Yak." DVIDS. December 5, 2011.
https://www.dvidshub.net/news/73923/prt-ghazni-starts-district-stability-team-deh-yak

Boone, John. "Taliban stronghold vies to become capital of culture." The Guardian. June 9, 2011.

Blanchfield, Michael. "Smashing the insurgency while doing good deeds." The Ottawa Citizen. March 29, 2008.

"Zabul PRT Focused on Reconstruction, Development." US Fed News. January 3, 2009.

Qualitative Interviews

Interviewee 1. PRT Commander, Ghazni. August 10, 2018.

Interviewee 2. PRT Commander, Ghazni. October 1, 2018.

Interviewee 3. PRT Commander, Ghazni. October 10, 2018.

Interviewee 4. PRT Commander, Ghazni. October 19, 2018.

Interviewee 5. PRT Commander, Zabul. August 22, 2018.

Interviewee 6. PRT Commander, Zabul. August 27, 2018.

Interviewee 7. PRT Commander, Zabul. October 4, 2018.

Interviewee 8. State Department official, Ghazni. August 16, 2018.

Interviewee 9. State Department official, Ghazni. August 28, 2018.

Interviewee 10. State Department official, Zabul. July 24, 2018.

Interviewee 11. State Department official, Zabul. October 9, 2018.

Interviewee 12. State Department official, Zabul. October 13, 2018.

Interviewee 13. USAID official, Ghazni. August 6, 2018.

Resources Referenced

Afghanistan Spatial Data Center. iMMAP. http://asdc.immap.org.

Chapter 2

Academic Works

Adams, Greg. 2015. "Honing the Proper Edge: CERP and two-sided potential of military-led development in Afghanistan." The Economics of Peace and Security Journal 10(2): 53-60.

Beath, Andrew, Fotini Christia, and Ruben Enikopolov. 2011. "Winning Hearts and Minds through Development Aid: Evidence from a Field Experiment in Afghanistan." Center for Economic and Financial Research at New Economic School Working Paper 166.

Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." Journal of Political Economy 76: 169-217.

Berman, Eli, Jacob N. Shapiro, and Joseph H. Felter. 2011a. "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." Journal of Political Economy 119(4): 766-819.

Berman, Eli, Michael Callen, Joseph H. Felter, and Jacob N. Shapiro. 2011b. "Do Working Men Rebel? Insurgency and Unemployment in Afghanistan, Iraq, and the Philippines." Journal of Conflict Resolution 55(4): 496-528.

Berman, Eli, Joseph Felter, Jacob N. Shapiro, and Erin Troland. January 2013. "Modest, Secure and Informed: Successful Development in Conflict Zones." National Bureau of Economic Research. Working Paper 18674.

Berman, Eli and David D. Laitin. 2008. "Religion, Terrorism, and Public Goods: Testing the Club Model," Journal of Public Economics 92: 1942-1967.

Blattman, Christopher and Jeannie Annan. June 2015. "Can Employment Reduce Lawlessness and Rebellion?" National Bureau of Economic Research.

Crost, Benjamin, Joseph Felter, and Patrick Johnston. 2014. "Aid under Fire: Development Projects and Civil Conflict." American Economic Review 104(6): 1833-56.

Child, Travers B. 2014. "Hearts and Minds Cannot be Bought: Ineffective Reconstruction in Afghanistan." The Economics of Peace and Security Journal 9(2): 43-49.

Chou, Tiffany. 2012. "Does development assistance reduce violence? Evidence from Afghanistan." Economics of Peace and Security Journal 7(2): 5-13.

Condra, Luke N., Joseph H. Felter, Rahha K. Iyengar, and Jacob N. Shapiro. 2010. "The Effect of Civilian Casualties in Afghanistan and Iraq." NBER Working paper 16152.

Del Castillo, Graciana. 2008. Rebuilding War-Torn States. New York: Oxford University Press.

Fukuyama, Francis. 2006. Nation-Building: Beyond Afghanistan and Iraq. Baltimore: Johns Hopkins University Press.

Galula, David. 1964. Counterinsurgency Warfare: Theory and Practice. New York: Frederick A. Praeger.

Ghani, Ashraf and Clare Lockhart. 2009. Fixing Failed States. New York: Oxford University Press.

Iyengar, Radha, Jacob N. Shapiro, Benjamin Crisman, Manu Singh, and James Mao. 2017. "Stabilization in Afghanistan: Trends in Violence, Attitudes, Well-being and Program Activity." RAND Corporation.

Kalyvas, Stathis N. 2006. The Logic of Violence in Civil War. Cambridge Studies in Comparative Politics. Cambridge: Cambridge University Press.

Karell, Daniel and Sebastian Shutte. 2018. "Aid, exclusion, and the local dynamics of insurgency in Afghanistan." Journal of Peace Research 55(6): 711-725.

Lindsay, Jon and Roger Petersen. 2011. "Varieties of Counterinsurgency: A Case Study of Iraq, 2003-2009." Center for Irregular Warfare and Armed Groups.

Sexton, Richard. 2016. "Aid as a Tool Against Insurgency: Evidence from Contested and Controlled Territory in Afghanistan." American Political Science Review 110(4): 731-49.

Strandow, Daniel, Michael G. Findley, and Joseph K. Young. 2014. "Foreign Aid and the Intensity of Violent Armed Conflict." AidData. Working Paper 24.

Qualitative Interviews

State Department official, Zabul. July 24, 2018.

PRT Commander, Ghazni. August 10, 2018.

State Department official, Ghazni. August 16, 2018.

State Department official, Ghazni. August 28, 2018.

PRT Commander, Ghazni. October 1, 2018.

PRT Commander, Ghazni. October 10, 2018.

Resources Referenced

Afghanistan Spatial Data Center. iMMAP. http://asdc.immap.org.

FM 2-22.3. 2006. Human Intelligence Collector Operations.

Izady, M. "Ethnic Groups of Afghanistan." Gulf 2000 Project. http://gulf2000.columbia.edu/images/maps/Afghanistan_Ethnic_lg.png.

Insurgencies and Countering Insurgencies. FM 3-24/MCWP 3-33.5. May 2014. Department of the Army.

"Propensity Score Matching in Stata using teffects." 2015. Social Science Computing Cooperative. https://www.ssc.wisc.edu/sscc/pubs/stata_psmatch.htm

Stability. ADRP 3-07. August 2012. Department of the Army.

Chapter 3

Academic Works

"Baghdad Belts." 2018. Institute for the Study of War. http://www.understandingwar.org/region/baghdad-belts.

Berman, Eli, Jacob N. Shapiro, and Joseph H. Felter. 2011a. "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." Journal of Political Economy 119(4): 766-819.

Blair, Graeme C., Christine Fair, Neil Malhotra, Jacob N. Shapiro. 2013. Poverty and Support for Militant Politics: Evidence from Pakistan. American Journal of Political Science 57: 30-48.

Beall, Jo and Sean Fox. 2009. Cities and Development. New York: Routledge.

Ghani, Ashraf and Clare Lockhart. 2009. Fixing Failed States. Oxford University Press.

Goode, Steven M. 2009. "A Historical Basis for Force Requirements in Counterinsurgency." Parameters 39: 45-57.

Lindsay, Jon and Roger Petersen. 2011. "Varieties of Counterinsurgency: A Case Study of Iraq, 2003-2009." Center for Irregular Warfare and Armed Groups.

McGrath, John J. 2006. "Boots on the ground: Troop Density in Contingency Operations." Global War on Terrorism Occasional Paper 16. Fort Leavenworth, KS: Combat Studies Institute Press.

Mousseau, Michael. 2011. "Urban poverty and support for Islamist terror: Survey results of Muslims in fourteen countries." Journal of Peace Research 48(1): 35-47.

Quinlivan, James T. 1995. "Force Requirements in Stability Operations." Parameters 25: 59–69.

Schelling, Thomas C. 1966. Arms and Influence. New Haven: Yale University Press.

Data

"Afghanistan in 2017: A Survey of the Afghan People." The Asia Foundation. https://asiafoundation.org/where-we-work/afghanistan/survey/data/

Croicu, Mihai and Ralph Sundberg, 2017, "UCDP GED Codebook version 18.1", Department of Peace and Conflict Research, Uppsala University.

Global Terrorism Database. 2018. National Consortium for the Study of Terrorism and Responses to Terrorism. https://www.start.umd.edu/gtd/contact/

Sundberg, Ralph, and Erik Melander, 2013, "Introducing the UCDP Georeferenced Event Dataset", Journal of Peace Research, vol.50, no.4, 523-532.

UCDP Georeferenced Event Dataset (GED) Global version 18.1 (2017). http://ucdp.uu.se/downloads/

Zhukov, Yuri M., Christian Davenport, and Nadiya Kostyuk. 2017. xSub: Cross-National Data on Subnational Violence. Produced and distributed by Ann Arbor, MI: Center for Political Studies, University of Michigan. http://cross-sub.org/data.

News Articles

Jackson, Ashley. 2018. "The Taliban's Fight for Hearts and Minds." Foreign Policy. https://foreignpolicy.com/2018/09/12/the-talibans-fight-for-hearts-and-minds-aghanistan/

Seligman, Lara. 2018. "In Afghanistan, a 17-Year Stalemate." Foreign Policy. https://foreignpolicy.com/2018/11/20/in-afghanistan-a-17-year-stalemate-us-war-pentagon/

Policy and Policy Analysis

International Security Assistance Force (ISAF): Key Facts and Figures. December 1, 2014. https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2014_12/20141201_141201-ISAF-Placemat-final.pdf.

McInnis, Kathleen J. and Andrew Feickert. 2017. "Additional Troops for Afghanistan? Considerations for Congress." Congressional Research Service. https://fas.org/sgp/crs/natsec/R44853.pdf.

"The USAID/Afghanistan Plan for Transition: 2015-2018." 2016. U.S. Agency for International Development. https://www.usaid.gov/sites/default/files/The-USAID-Afghanistan-Plan-for-Transition-2015-2018-FINAL-08-2016.pdf.